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Appendix G

RI Sample Analytical Reports

PHASE II ESA DATA PACKAGES

Report of Analysis

AECOM

810 Dutch Square Blvd.
Suite 202
Columbia, SC 29210
Attention: Scott Ross

Project Name: **Phase II ESA - Shakespeare**

Lot Number: **PA29010**

Date Completed: **02/06/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PA29010 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PA29010

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PA29010

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	REC-1 B-1 (12-13)	Solid	01/28/2014 1020	01/28/2014
002	REC-1 B-2 (12-13)	Solid	01/28/2014 1100	01/28/2014
003	Trip Blank 2	Aqueous	01/28/2014	01/28/2014

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PA29010

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
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(0 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-001
Description: REC-1 B-1 (12-13)	Matrix: Solid
Date Sampled: 01/28/2014 1020	% Solids: 80.5 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/30/2014 1343	AAC		39458	5.98

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		21	ug/kg	1
Benzene	71-43-2	8260B	ND		5.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.2	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.2	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.2	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.2	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.2	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.2	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.2	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.2	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.2	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.2	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.2	ug/kg	1
Styrene	100-42-5	8260B	ND		5.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.2	ug/kg	1
Toluene	108-88-3	8260B	ND		5.2	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-001
Description: REC-1 B-1 (12-13)	Matrix: Solid
Date Sampled: 01/28/2014 1020	% Solids: 80.5 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/30/2014 1343	AAC		39458	5.98

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.2	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-002
Description: REC-1 B-2 (12-13)	Matrix: Solid
Date Sampled: 01/28/2014 1100	% Solids: 80.3 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/30/2014 1407	AAC		39458	5.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		22	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	ug/kg	1
Styrene	100-42-5	8260B	ND		5.4	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-002
Description: REC-1 B-2 (12-13)	Matrix: Solid
Date Sampled: 01/28/2014 1100	% Solids: 80.3 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/30/2014 1407	AAC		39458	5.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.4	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	ug/kg	1

Surrogate	Run 1 Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-003
Description: Trip Blank 2	Matrix: Aqueous
Date Sampled: 01/28/2014	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 0048	PMM2		39888

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29010-003
Description: Trip Blank 2	Matrix: Aqueous
Date Sampled: 01/28/2014	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 0048	PMM2		39888

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		70	70-130
Bromofluorobenzene		79	70-130
Toluene-d8		72	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the PQL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39458-001

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	20	ug/kg	01/30/2014 1255
Benzene	ND		1	5.0	ug/kg	01/30/2014 1255
Bromodichloromethane	ND		1	5.0	ug/kg	01/30/2014 1255
Bromoform	ND		1	5.0	ug/kg	01/30/2014 1255
Bromomethane (Methyl bromide)	ND		1	5.0	ug/kg	01/30/2014 1255
2-Butanone (MEK)	ND		1	10	ug/kg	01/30/2014 1255
Carbon disulfide	ND		1	5.0	ug/kg	01/30/2014 1255
Carbon tetrachloride	ND		1	5.0	ug/kg	01/30/2014 1255
Chlorobenzene	ND		1	5.0	ug/kg	01/30/2014 1255
Chloroethane	ND		1	5.0	ug/kg	01/30/2014 1255
Chloroform	ND		1	5.0	ug/kg	01/30/2014 1255
Chloromethane (Methyl chloride)	ND		1	5.0	ug/kg	01/30/2014 1255
Cyclohexane	ND		1	5.0	ug/kg	01/30/2014 1255
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	ug/kg	01/30/2014 1255
Dibromochloromethane	ND		1	5.0	ug/kg	01/30/2014 1255
1,2-Dibromoethane (EDB)	ND		1	5.0	ug/kg	01/30/2014 1255
1,4-Dichlorobenzene	ND		1	5.0	ug/kg	01/30/2014 1255
1,3-Dichlorobenzene	ND		1	5.0	ug/kg	01/30/2014 1255
1,2-Dichlorobenzene	ND		1	5.0	ug/kg	01/30/2014 1255
Dichlorodifluoromethane	ND		1	5.0	ug/kg	01/30/2014 1255
1,2-Dichloroethane	ND		1	5.0	ug/kg	01/30/2014 1255
1,1-Dichloroethane	ND		1	5.0	ug/kg	01/30/2014 1255
trans-1,2-Dichloroethene	ND		1	5.0	ug/kg	01/30/2014 1255
cis-1,2-Dichloroethene	ND		1	5.0	ug/kg	01/30/2014 1255
1,1-Dichloroethene	ND		1	5.0	ug/kg	01/30/2014 1255
1,2-Dichloropropane	ND		1	5.0	ug/kg	01/30/2014 1255
trans-1,3-Dichloropropene	ND		1	5.0	ug/kg	01/30/2014 1255
cis-1,3-Dichloropropene	ND		1	5.0	ug/kg	01/30/2014 1255
Ethylbenzene	ND		1	5.0	ug/kg	01/30/2014 1255
2-Hexanone	ND		1	10	ug/kg	01/30/2014 1255
Isopropylbenzene	ND		1	5.0	ug/kg	01/30/2014 1255
Methyl acetate	ND		1	5.0	ug/kg	01/30/2014 1255
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/kg	01/30/2014 1255
4-Methyl-2-pentanone	ND		1	10	ug/kg	01/30/2014 1255
Methylcyclohexane	ND		1	5.0	ug/kg	01/30/2014 1255
Methylene chloride	ND		1	5.0	ug/kg	01/30/2014 1255
Styrene	ND		1	5.0	ug/kg	01/30/2014 1255
1,1,2,2-Tetrachloroethane	ND		1	5.0	ug/kg	01/30/2014 1255
Tetrachloroethene	ND		1	5.0	ug/kg	01/30/2014 1255
Toluene	ND		1	5.0	ug/kg	01/30/2014 1255
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	ug/kg	01/30/2014 1255
1,2,4-Trichlorobenzene	ND		1	5.0	ug/kg	01/30/2014 1255
1,1,2-Trichloroethane	ND		1	5.0	ug/kg	01/30/2014 1255
1,1,1-Trichloroethane	ND		1	5.0	ug/kg	01/30/2014 1255

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39458-001

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	5.0	ug/kg	01/30/2014 1255
Trichlorofluoromethane	ND		1	5.0	ug/kg	01/30/2014 1255
Vinyl chloride	ND		1	5.0	ug/kg	01/30/2014 1255
Xylenes (total)	ND		1	5.0	ug/kg	01/30/2014 1255
Surrogate	Q	% Rec	Acceptance Limit			
Bromofluorobenzene		89	47-138			
1,2-Dichloroethane-d4		88	53-142			
Toluene-d8		90	68-124			

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39458-002

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	115	60-140	01/30/2014 1119
Benzene	50	44		1	88	69-123	01/30/2014 1119
Bromodichloromethane	50	44		1	89	69-121	01/30/2014 1119
Bromoform	50	47		1	93	61-119	01/30/2014 1119
Bromomethane (Methyl bromide)	50	43		1	87	10-168	01/30/2014 1119
2-Butanone (MEK)	100	100		1	101	57-148	01/30/2014 1119
Carbon disulfide	50	41		1	83	58-122	01/30/2014 1119
Carbon tetrachloride	50	44		1	88	58-136	01/30/2014 1119
Chlorobenzene	50	44		1	89	59-129	01/30/2014 1119
Chloroethane	50	46		1	93	42-163	01/30/2014 1119
Chloroform	50	43		1	86	71-125	01/30/2014 1119
Chloromethane (Methyl chloride)	50	45		1	91	34-134	01/30/2014 1119
Cyclohexane	50	43		1	85	53-139	01/30/2014 1119
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	55-125	01/30/2014 1119
Dibromochloromethane	50	45		1	91	66-119	01/30/2014 1119
1,2-Dibromoethane (EDB)	50	45		1	90	74-124	01/30/2014 1119
1,4-Dichlorobenzene	50	44		1	88	52-133	01/30/2014 1119
1,3-Dichlorobenzene	50	44		1	88	51-134	01/30/2014 1119
1,2-Dichlorobenzene	50	45		1	89	57-131	01/30/2014 1119
Dichlorodifluoromethane	50	50		1	101	10-157	01/30/2014 1119
1,2-Dichloroethane	50	43		1	86	67-129	01/30/2014 1119
1,1-Dichloroethane	50	44		1	87	71-127	01/30/2014 1119
trans-1,2-Dichloroethene	50	43		1	87	68-131	01/30/2014 1119
cis-1,2-Dichloroethene	50	43		1	86	70-122	01/30/2014 1119
1,1-Dichloroethene	50	46		1	92	69-138	01/30/2014 1119
1,2-Dichloropropane	50	44		1	89	72-124	01/30/2014 1119
trans-1,3-Dichloropropene	50	45		1	90	70-124	01/30/2014 1119
cis-1,3-Dichloropropene	50	46		1	92	70-126	01/30/2014 1119
Ethylbenzene	50	44		1	87	59-128	01/30/2014 1119
2-Hexanone	100	100		1	100	54-137	01/30/2014 1119
Isopropylbenzene	50	44		1	88	50-136	01/30/2014 1119
Methyl acetate	50	46		1	91	59-137	01/30/2014 1119
Methyl tertiary butyl ether (MTBE)	50	43		1	87	70-130	01/30/2014 1119
4-Methyl-2-pentanone	100	98		1	98	60-134	01/30/2014 1119
Methylcyclohexane	50	44		1	88	41-144	01/30/2014 1119
Methylene chloride	50	41		1	83	70-130	01/30/2014 1119
Styrene	50	45		1	90	54-136	01/30/2014 1119
1,1,2,2-Tetrachloroethane	50	45		1	91	69-132	01/30/2014 1119
Tetrachloroethene	50	42		1	84	45-150	01/30/2014 1119
Toluene	50	44		1	88	61-129	01/30/2014 1119
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	42		1	85	49-136	01/30/2014 1119
1,2,4-Trichlorobenzene	50	43		1	86	34-145	01/30/2014 1119
1,1,2-Trichloroethane	50	42		1	85	55-128	01/30/2014 1119
1,1,1-Trichloroethane	50	43		1	85	63-128	01/30/2014 1119

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39458-002

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	44		1	88	62-126	01/30/2014 1119
Trichlorofluoromethane	50	45		1	89	45-138	01/30/2014 1119
Vinyl chloride	50	49		1	98	42-132	01/30/2014 1119
Xylenes (total)	100	89		1	89	58-128	01/30/2014 1119
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		96	47-138				
1,2-Dichloroethane-d4		91	53-142				
Toluene-d8		97	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39458-003

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	120	3.8	60-140	20	01/30/2014 1143
Benzene	50	43		1	86	1.9	69-123	20	01/30/2014 1143
Bromodichloromethane	50	44		1	88	0.90	69-121	20	01/30/2014 1143
Bromoform	50	47		1	95	1.5	61-119	20	01/30/2014 1143
Bromomethane (Methyl bromide)	50	44		1	87	0.37	10-168	20	01/30/2014 1143
2-Butanone (MEK)	100	100		1	102	0.48	57-148	20	01/30/2014 1143
Carbon disulfide	50	41		1	82	1.3	58-122	20	01/30/2014 1143
Carbon tetrachloride	50	42		1	84	3.7	58-136	20	01/30/2014 1143
Chlorobenzene	50	43		1	87	2.5	59-129	20	01/30/2014 1143
Chloroethane	50	45		1	90	2.8	42-163	20	01/30/2014 1143
Chloroform	50	42		1	84	2.4	71-125	20	01/30/2014 1143
Chloromethane (Methyl chloride)	50	43		1	86	5.0	34-134	20	01/30/2014 1143
Cyclohexane	50	43		1	86	1.4	53-139	20	01/30/2014 1143
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	0.70	55-125	20	01/30/2014 1143
Dibromochloromethane	50	45		1	91	0.19	66-119	20	01/30/2014 1143
1,2-Dibromoethane (EDB)	50	45		1	90	0.32	74-124	20	01/30/2014 1143
1,4-Dichlorobenzene	50	43		1	86	2.1	52-133	20	01/30/2014 1143
1,3-Dichlorobenzene	50	42		1	84	4.3	51-134	20	01/30/2014 1143
1,2-Dichlorobenzene	50	43		1	86	3.5	57-131	20	01/30/2014 1143
Dichlorodifluoromethane	50	47		1	93	7.4	10-157	20	01/30/2014 1143
1,2-Dichloroethane	50	43		1	86	0.41	67-129	20	01/30/2014 1143
1,1-Dichloroethane	50	43		1	85	2.8	71-127	20	01/30/2014 1143
trans-1,2-Dichloroethene	50	42		1	84	3.2	68-131	20	01/30/2014 1143
cis-1,2-Dichloroethene	50	42		1	84	2.7	70-122	20	01/30/2014 1143
1,1-Dichloroethene	50	44		1	88	4.4	69-138	20	01/30/2014 1143
1,2-Dichloropropane	50	43		1	86	3.2	72-124	20	01/30/2014 1143
trans-1,3-Dichloropropene	50	45		1	90	0.51	70-124	20	01/30/2014 1143
cis-1,3-Dichloropropene	50	45		1	89	2.9	70-126	20	01/30/2014 1143
Ethylbenzene	50	43		1	86	1.7	59-128	20	01/30/2014 1143
2-Hexanone	100	100		1	101	1.3	54-137	20	01/30/2014 1143
Isopropylbenzene	50	42		1	83	5.0	50-136	20	01/30/2014 1143
Methyl acetate	50	47		1	93	2.0	59-137	20	01/30/2014 1143
Methyl tertiary butyl ether (MTBE)	50	44		1	87	0.83	70-130	20	01/30/2014 1143
4-Methyl-2-pentanone	100	96		1	96	1.7	60-134	20	01/30/2014 1143
Methylcyclohexane	50	42		1	84	4.3	41-144	20	01/30/2014 1143
Methylene chloride	50	41		1	82	0.71	70-130	20	01/30/2014 1143
Styrene	50	45		1	89	1.2	54-136	20	01/30/2014 1143
1,1,2,2-Tetrachloroethane	50	44		1	88	2.8	69-132	20	01/30/2014 1143
Tetrachloroethene	50	41		1	81	3.0	45-150	20	01/30/2014 1143
Toluene	50	43		1	85	3.3	61-129	20	01/30/2014 1143
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	6.2	49-136	20	01/30/2014 1143
1,2,4-Trichlorobenzene	50	44		1	89	3.2	34-145	20	01/30/2014 1143
1,1,2-Trichloroethane	50	43		1	85	0.45	55-128	20	01/30/2014 1143
1,1,1-Trichloroethane	50	43		1	85	0.10	63-128	20	01/30/2014 1143

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39458-003

Matrix: Solid

Batch: 39458

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	43		1	86	3.0	62-126	20	01/30/2014 1143
Trichlorofluoromethane	50	44		1	88	1.0	45-138	20	01/30/2014 1143
Vinyl chloride	50	46		1	93	5.4	42-132	20	01/30/2014 1143
Xylenes (total)	100	87		1	87	1.9	58-128	20	01/30/2014 1143
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		93	47-138						
1,2-Dichloroethane-d4		84	53-142						
Toluene-d8		91	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39888-001

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	20	ug/L	02/06/2014 0002
Benzene	ND		1	5.0	ug/L	02/06/2014 0002
Bromodichloromethane	ND		1	5.0	ug/L	02/06/2014 0002
Bromoform	ND		1	5.0	ug/L	02/06/2014 0002
Bromomethane (Methyl bromide)	ND		1	5.0	ug/L	02/06/2014 0002
2-Butanone (MEK)	ND		1	10	ug/L	02/06/2014 0002
Carbon disulfide	ND		1	5.0	ug/L	02/06/2014 0002
Carbon tetrachloride	ND		1	5.0	ug/L	02/06/2014 0002
Chlorobenzene	ND		1	5.0	ug/L	02/06/2014 0002
Chloroethane	ND		1	5.0	ug/L	02/06/2014 0002
Chloroform	ND		1	5.0	ug/L	02/06/2014 0002
Chloromethane (Methyl chloride)	ND		1	5.0	ug/L	02/06/2014 0002
Cyclohexane	ND		1	5.0	ug/L	02/06/2014 0002
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	ug/L	02/06/2014 0002
Dibromochloromethane	ND		1	5.0	ug/L	02/06/2014 0002
1,2-Dibromoethane (EDB)	ND		1	5.0	ug/L	02/06/2014 0002
1,4-Dichlorobenzene	ND		1	5.0	ug/L	02/06/2014 0002
1,3-Dichlorobenzene	ND		1	5.0	ug/L	02/06/2014 0002
1,2-Dichlorobenzene	ND		1	5.0	ug/L	02/06/2014 0002
Dichlorodifluoromethane	ND		1	5.0	ug/L	02/06/2014 0002
1,2-Dichloroethane	ND		1	5.0	ug/L	02/06/2014 0002
1,1-Dichloroethane	ND		1	5.0	ug/L	02/06/2014 0002
trans-1,2-Dichloroethene	ND		1	5.0	ug/L	02/06/2014 0002
cis-1,2-Dichloroethene	ND		1	5.0	ug/L	02/06/2014 0002
1,1-Dichloroethene	ND		1	5.0	ug/L	02/06/2014 0002
1,2-Dichloropropane	ND		1	5.0	ug/L	02/06/2014 0002
trans-1,3-Dichloropropene	ND		1	5.0	ug/L	02/06/2014 0002
cis-1,3-Dichloropropene	ND		1	5.0	ug/L	02/06/2014 0002
Ethylbenzene	ND		1	5.0	ug/L	02/06/2014 0002
2-Hexanone	ND		1	10	ug/L	02/06/2014 0002
Isopropylbenzene	ND		1	5.0	ug/L	02/06/2014 0002
Methyl acetate	ND		1	5.0	ug/L	02/06/2014 0002
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/L	02/06/2014 0002
4-Methyl-2-pentanone	ND		1	10	ug/L	02/06/2014 0002
Methylcyclohexane	ND		1	5.0	ug/L	02/06/2014 0002
Methylene chloride	ND		1	5.0	ug/L	02/06/2014 0002
Styrene	ND		1	5.0	ug/L	02/06/2014 0002
1,1,2,2-Tetrachloroethane	ND		1	5.0	ug/L	02/06/2014 0002
Tetrachloroethene	ND		1	5.0	ug/L	02/06/2014 0002
Toluene	ND		1	5.0	ug/L	02/06/2014 0002
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	ug/L	02/06/2014 0002
1,2,4-Trichlorobenzene	ND		1	5.0	ug/L	02/06/2014 0002
1,1,2-Trichloroethane	ND		1	5.0	ug/L	02/06/2014 0002
1,1,1-Trichloroethane	ND		1	5.0	ug/L	02/06/2014 0002

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39888-001

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	5.0	ug/L	02/06/2014 0002
Trichlorofluoromethane	ND		1	5.0	ug/L	02/06/2014 0002
Vinyl chloride	ND		1	2.0	ug/L	02/06/2014 0002
Xylenes (total)	ND		1	5.0	ug/L	02/06/2014 0002
Surrogate	Q	% Rec	Acceptance Limit			
Bromofluorobenzene		81	70-130			
1,2-Dichloroethane-d4		71	70-130			
Toluene-d8		73	70-130			

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39888-002

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	105	60-140	02/05/2014 2230
Benzene	50	50		1	99	70-130	02/05/2014 2230
Bromodichloromethane	50	51		1	102	70-130	02/05/2014 2230
Bromoform	50	48		1	95	70-130	02/05/2014 2230
Bromomethane (Methyl bromide)	50	48		1	97	60-140	02/05/2014 2230
2-Butanone (MEK)	100	100		1	102	60-140	02/05/2014 2230
Carbon disulfide	50	51		1	102	60-140	02/05/2014 2230
Carbon tetrachloride	50	52		1	104	70-130	02/05/2014 2230
Chlorobenzene	50	49		1	98	70-130	02/05/2014 2230
Chloroethane	50	49		1	99	42-163	02/05/2014 2230
Chloroform	50	48		1	96	70-130	02/05/2014 2230
Chloromethane (Methyl chloride)	50	47		1	94	60-140	02/05/2014 2230
Cyclohexane	50	44		1	87	70-130	02/05/2014 2230
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	70-130	02/05/2014 2230
Dibromochloromethane	50	49		1	99	70-130	02/05/2014 2230
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	02/05/2014 2230
1,4-Dichlorobenzene	50	47		1	93	70-130	02/05/2014 2230
1,3-Dichlorobenzene	50	48		1	96	70-130	02/05/2014 2230
1,2-Dichlorobenzene	50	48		1	96	70-130	02/05/2014 2230
Dichlorodifluoromethane	50	53		1	106	60-140	02/05/2014 2230
1,2-Dichloroethane	50	49		1	98	70-130	02/05/2014 2230
1,1-Dichloroethane	50	50		1	100	70-130	02/05/2014 2230
trans-1,2-Dichloroethene	50	50		1	100	70-130	02/05/2014 2230
cis-1,2-Dichloroethene	50	49		1	98	70-130	02/05/2014 2230
1,1-Dichloroethene	50	50		1	100	70-130	02/05/2014 2230
1,2-Dichloropropane	50	49		1	97	70-130	02/05/2014 2230
trans-1,3-Dichloropropene	50	54		1	107	70-130	02/05/2014 2230
cis-1,3-Dichloropropene	50	48		1	95	70-130	02/05/2014 2230
Ethylbenzene	50	48		1	96	70-130	02/05/2014 2230
2-Hexanone	100	100		1	100	60-140	02/05/2014 2230
Isopropylbenzene	50	52		1	103	70-130	02/05/2014 2230
Methyl acetate	50	51		1	101	70-130	02/05/2014 2230
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	02/05/2014 2230
4-Methyl-2-pentanone	100	100		1	100	60-140	02/05/2014 2230
Methylcyclohexane	50	49		1	98	70-130	02/05/2014 2230
Methylene chloride	50	45		1	91	70-130	02/05/2014 2230
Styrene	50	49		1	98	70-130	02/05/2014 2230
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	02/05/2014 2230
Tetrachloroethene	50	48		1	96	70-130	02/05/2014 2230
Toluene	50	48		1	97	70-130	02/05/2014 2230
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	107	70-130	02/05/2014 2230
1,2,4-Trichlorobenzene	50	49		1	99	70-130	02/05/2014 2230
1,1,2-Trichloroethane	50	51		1	101	70-130	02/05/2014 2230
1,1,1-Trichloroethane	50	48		1	97	70-130	02/05/2014 2230

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39888-002

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	02/05/2014 2230
Trichlorofluoromethane	50	49		1	97	70-130	02/05/2014 2230
Vinyl chloride	50	51		1	103	70-130	02/05/2014 2230
Xylenes (total)	100	98		1	98	70-130	02/05/2014 2230
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		77	70-130				
1,2-Dichloroethane-d4		70	70-130				
Toluene-d8		74	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39888-003

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	85	+	1	85	21	60-140	20	02/05/2014 2253
Benzene	50	50		1	100	0.31	70-130	20	02/05/2014 2253
Bromodichloromethane	50	51		1	101	0.86	70-130	20	02/05/2014 2253
Bromoform	50	49		1	97	2.2	70-130	20	02/05/2014 2253
Bromomethane (Methyl bromide)	50	48		1	95	1.6	60-140	20	02/05/2014 2253
2-Butanone (MEK)	100	99		1	99	3.3	60-140	20	02/05/2014 2253
Carbon disulfide	50	49		1	97	5.5	60-140	20	02/05/2014 2253
Carbon tetrachloride	50	51		1	102	2.3	70-130	20	02/05/2014 2253
Chlorobenzene	50	50		1	99	0.79	70-130	20	02/05/2014 2253
Chloroethane	50	48		1	96	2.3	42-163	20	02/05/2014 2253
Chloroform	50	46		1	92	4.0	70-130	20	02/05/2014 2253
Chloromethane (Methyl chloride)	50	46		1	92	1.9	60-140	20	02/05/2014 2253
Cyclohexane	50	42		1	83	4.7	70-130	20	02/05/2014 2253
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	1.3	70-130	20	02/05/2014 2253
Dibromochloromethane	50	49		1	98	1.1	70-130	20	02/05/2014 2253
1,2-Dibromoethane (EDB)	50	51		1	103	0.70	70-130	20	02/05/2014 2253
1,4-Dichlorobenzene	50	47		1	94	0.70	70-130	20	02/05/2014 2253
1,3-Dichlorobenzene	50	47		1	94	1.2	70-130	20	02/05/2014 2253
1,2-Dichlorobenzene	50	48		1	96	0.048	70-130	20	02/05/2014 2253
Dichlorodifluoromethane	50	51		1	101	4.5	60-140	20	02/05/2014 2253
1,2-Dichloroethane	50	46		1	92	5.4	70-130	20	02/05/2014 2253
1,1-Dichloroethane	50	48		1	96	3.9	70-130	20	02/05/2014 2253
trans-1,2-Dichloroethene	50	48		1	96	4.1	70-130	20	02/05/2014 2253
cis-1,2-Dichloroethene	50	47		1	94	4.6	70-130	20	02/05/2014 2253
1,1-Dichloroethene	50	48		1	95	4.5	70-130	20	02/05/2014 2253
1,2-Dichloropropane	50	48		1	97	0.32	70-130	20	02/05/2014 2253
trans-1,3-Dichloropropene	50	54		1	108	0.80	70-130	20	02/05/2014 2253
cis-1,3-Dichloropropene	50	48		1	97	1.7	70-130	20	02/05/2014 2253
Ethylbenzene	50	49		1	97	1.7	70-130	20	02/05/2014 2253
2-Hexanone	100	100		1	104	3.2	60-140	20	02/05/2014 2253
Isopropylbenzene	50	50		1	99	3.8	70-130	20	02/05/2014 2253
Methyl acetate	50	45		1	89	13	70-130	20	02/05/2014 2253
Methyl tertiary butyl ether (MTBE)	50	46		1	93	6.7	70-130	20	02/05/2014 2253
4-Methyl-2-pentanone	100	100		1	102	1.5	60-140	20	02/05/2014 2253
Methylcyclohexane	50	48		1	97	0.94	70-130	20	02/05/2014 2253
Methylene chloride	50	42		1	85	6.8	70-130	20	02/05/2014 2253
Styrene	50	50		1	100	1.8	70-130	20	02/05/2014 2253
1,1,2,2-Tetrachloroethane	50	51		1	102	3.7	70-130	20	02/05/2014 2253
Tetrachloroethene	50	48		1	95	0.56	70-130	20	02/05/2014 2253
Toluene	50	50		1	100	2.9	70-130	20	02/05/2014 2253
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	3.6	70-130	20	02/05/2014 2253
1,2,4-Trichlorobenzene	50	46		1	93	6.0	70-130	20	02/05/2014 2253
1,1,2-Trichloroethane	50	50		1	101	0.14	70-130	20	02/05/2014 2253
1,1,1-Trichloroethane	50	47		1	94	2.9	70-130	20	02/05/2014 2253

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39888-003

Matrix: Aqueous

Batch: 39888

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	50		1	99	0.28	70-130	20	02/05/2014 2253
Trichlorofluoromethane	50	47		1	94	3.3	70-130	20	02/05/2014 2253
Vinyl chloride	50	50		1	100	3.4	70-130	20	02/05/2014 2253
Xylenes (total)	100	98		1	98	0.28	70-130	20	02/05/2014 2253
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		80	70-130						
1,2-Dichloroethane-d4	N	68	70-130						
Toluene-d8		76	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the PQL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 13

Page 1 of 1
 Replaces Date: 09/24/13
 Effective Date: 09/26/13

Sample Receipt Checklist (SRC)

Client: Atcom Cooler Inspected by/date: KMM/12/14 Lot #: PA29010
+NMS

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other			
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?	
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: / / °C / / °C / / °C / / °C			
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>H3</u> IR Gun Correction Factor: <u>0.1</u> °C			
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		6. Were sample IDs listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		7. Was collection date & time listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		8. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		9. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		10. Did all container label information (ID, date, time) agree with COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		12. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		14. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		15. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	20. Were collection temperatures documented on the COC for NC samples?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) _____			
Sample(s) _____ were received with bubbles >6 mm in diameter.			
Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol			
Sample labels verified by: _____		Date: _____	

Corrective Action taken, if necessary:

Was client notified: Yes No Did client respond: Yes No

SESI employee: _____ Date of response: _____

Comments: unpreserved vial used for TOS

Report of Analysis

AECOM

810 Dutch Square Blvd.
Suite 202
Columbia, SC 29210
Attention: Scott Ross

Project Name: **Phase II ESA - Shakespeare**

Lot Number: **PA29015**

Date Completed: **02/10/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PA29015 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PA29015

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

PCB

The sample results associated with a P qualifier have a relative percent difference (RPD) between the two dissimilar phase GC columns which exceeds 40%. In accordance with Section 7.10.4 of SW-846 method 8000B, the higher of the two results is reported. Due to disparity of the two results, it is likely that the reported results are biased high, or maybe a false positive.

Semivolatile Organic Compounds

The MS/MSD recoveries in batch 39534 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PA29015

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Trip Blank	Aqueous	01/27/2014	01/28/2014
002	REC 6	Solid	01/27/2014 1320	01/28/2014
003	REC 7b	Solid	01/27/2014 1410	01/28/2014
004	REC 7a	Solid	01/27/2014 1300	01/28/2014
005	REC 9 B-14	Solid	01/27/2014 1455	01/28/2014
006	REC 9 B-15	Solid	01/27/2014 1515	01/28/2014
007	REC 11 B-17	Solid	01/27/2014 1620	01/28/2014
008	REC 11 B-18	Solid	01/27/2014 1600	01/28/2014
009	REC 7 SW-1	Aqueous	01/27/2014 1355	01/28/2014
010	REC 3 B-5 (9-10)	Solid	01/27/2014 1445	01/28/2014
011	REC 3 B-6 (9-10)	Solid	01/27/2014 1530	01/28/2014
012	REC 3 B-7 (9-10)	Solid	01/27/2014 1605	01/28/2014

(12 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PA29015

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	REC 6	Solid	Benzo(a)anthracene	8270D	11	J	ug/kg	7
002	REC 6	Solid	Benzo(a)pyrene	8270D	18	J	ug/kg	7
002	REC 6	Solid	Benzo(b)fluoranthene	8270D	39		ug/kg	7
002	REC 6	Solid	Chrysene	8270D	17	J	ug/kg	7
002	REC 6	Solid	Fluoranthene	8270D	36	J	ug/kg	7
002	REC 6	Solid	Phenanthrene	8270D	13	J	ug/kg	7
002	REC 6	Solid	Pyrene	8270D	28	J	ug/kg	7
002	REC 6	Solid	Aroclor 1260	8082A	11	JP	ug/kg	8
003	REC 7b	Solid	Acetone	8260B	8.3	J	ug/kg	9
003	REC 7b	Solid	Isopropylbenzene	8260B	0.26	J	ug/kg	9
003	REC 7b	Solid	Anthracene	8270D	250	J	ug/kg	11
003	REC 7b	Solid	Benzo(a)anthracene	8270D	2000		ug/kg	11
003	REC 7b	Solid	Benzo(a)pyrene	8270D	2300		ug/kg	11
003	REC 7b	Solid	Benzo(b)fluoranthene	8270D	3800		ug/kg	11
003	REC 7b	Solid	Benzo(g,h,i)perylene	8270D	1400		ug/kg	11
003	REC 7b	Solid	Benzo(k)fluoranthene	8270D	1400		ug/kg	11
003	REC 7b	Solid	Chrysene	8270D	2800		ug/kg	11
003	REC 7b	Solid	Fluoranthene	8270D	5800		ug/kg	11
003	REC 7b	Solid	Indeno(1,2,3-c,d)pyrene	8270D	1300		ug/kg	11
003	REC 7b	Solid	Phenanthrene	8270D	2000		ug/kg	11
003	REC 7b	Solid	Pyrene	8270D	4000		ug/kg	11
004	REC 7a	Solid	Fluoranthene	8270D	180	J	ug/kg	14
004	REC 7a	Solid	Phenanthrene	8270D	100	J	ug/kg	14
004	REC 7a	Solid	Pyrene	8270D	150	J	ug/kg	14
007	REC 11 B-17	Solid	Acetone	8260B	9.0	J	ug/kg	21
009	REC 7 SW-1	Aqueous	Acetone	8260B	23		ug/L	27
009	REC 7 SW-1	Aqueous	Styrene	8260B	0.53	J	ug/L	27
009	REC 7 SW-1	Aqueous	Anthracene	8270D	0.056	J	ug/L	29
009	REC 7 SW-1	Aqueous	Benzo(a)pyrene	8270D	0.16	J	ug/L	29
009	REC 7 SW-1	Aqueous	Benzo(b)fluoranthene	8270D	0.25		ug/L	29
009	REC 7 SW-1	Aqueous	Fluoranthene	8270D	0.10	J	ug/L	29
009	REC 7 SW-1	Aqueous	Pyrene	8270D	0.081	J	ug/L	29
010	REC 3 B-5 (9-10)	Solid	Acetone	8260B	53		ug/kg	30
011	REC 3 B-6 (9-10)	Solid	Acetone	8260B	120		ug/kg	32
011	REC 3 B-6 (9-10)	Solid	2-Butanone (MEK)	8260B	5.8	J	ug/kg	32
012	REC 3 B-7 (9-10)	Solid	Acetone	8260B	57		ug/kg	34
012	REC 3 B-7 (9-10)	Solid	2-Butanone (MEK)	8260B	5.4	J	ug/kg	34
012	REC 3 B-7 (9-10)	Solid	Toluene	8260B	3.3	J	ug/kg	34

(38 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-001
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 01/27/2014	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 1728	ALL		39940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-001
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 01/27/2014	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 1728	ALL		39940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-002
Description: REC 6	Matrix: Solid
Date Sampled: 01/27/2014 1320	% Solids: 86.1 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1849	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		38	12	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		38	12	ug/kg	1
Anthracene	120-12-7	8270D	ND		38	8.5	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	11	J	38	10	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	18	J	38	11	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	39		38	11	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		38	13	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		38	11	ug/kg	1
Chrysene	218-01-9	8270D	17	J	38	13	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		38	11	ug/kg	1
Fluoranthene	206-44-0	8270D	36	J	38	12	ug/kg	1
Fluorene	86-73-7	8270D	ND		38	10	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		38	11	ug/kg	1
Naphthalene	91-20-3	8270D	ND		38	12	ug/kg	1
Phenanthrene	85-01-8	8270D	13	J	38	10	ug/kg	1
Pyrene	129-00-0	8270D	28	J	38	15	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	33-102
Nitrobenzene-d5		70	22-109
Terphenyl-d14		91	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

PCBs by GC

Client: AECOM	Laboratory ID: PA29015-002
Description: REC 6	Matrix: Solid
Date Sampled: 01/27/2014 1320	% Solids: 86.1 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8082A	1	02/10/2014 1143	MPM	01/30/2014 1905	39483

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Aroclor 1016	12674-11-2	8082A	ND		20	1.3	ug/kg	1
Aroclor 1221	11104-28-2	8082A	ND		20	11	ug/kg	1
Aroclor 1232	11141-16-5	8082A	ND		20	3.8	ug/kg	1
Aroclor 1242	53469-21-9	8082A	ND		20	2.7	ug/kg	1
Aroclor 1248	12672-29-6	8082A	ND		20	4.4	ug/kg	1
Aroclor 1254	11097-69-1	8082A	ND		20	2.1	ug/kg	1
Aroclor 1260	11096-82-5	8082A	11	JP	20	6.6	ug/kg	1

Surrogate	Run 1		Acceptance Limits
	Q	% Recovery	
Decachlorobiphenyl		92	41-132
Tetrachloro-m-xylene		94	35-106

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-003
Description: REC 7b	Matrix: Solid
Date Sampled: 01/27/2014 1410	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1217	AAC		39504	6.02

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	8.3	J	22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	0.26	J	5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-003
Description: REC 7b	Matrix: Solid
Date Sampled: 01/27/2014 1410	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1217	AAC		39504	6.02

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-003
Description: REC 7b	Matrix: Solid
Date Sampled: 01/27/2014 1410	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	10	02/06/2014 1516	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		420	140	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		420	130	ug/kg	1
Anthracene	120-12-7	8270D	250	J	420	94	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	2000		420	110	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	2300		420	120	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	3800		420	120	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	1400		420	150	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	1400		420	120	ug/kg	1
Chrysene	218-01-9	8270D	2800		420	140	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		420	120	ug/kg	1
Fluoranthene	206-44-0	8270D	5800		420	130	ug/kg	1
Fluorene	86-73-7	8270D	ND		420	110	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	1300		420	120	ug/kg	1
Naphthalene	91-20-3	8270D	ND		420	130	ug/kg	1
Phenanthrene	85-01-8	8270D	2000		420	110	ug/kg	1
Pyrene	129-00-0	8270D	4000		420	170	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		69	33-102
Nitrobenzene-d5		64	22-109
Terphenyl-d14		75	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-004
Description: REC 7a	Matrix: Solid
Date Sampled: 01/27/2014 1300	% Solids: 88.9 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1241	AAC		39504	4.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.8	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.8	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.8	0.81	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.8	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.8	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.8	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.8	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.8	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.8	0.96	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.8	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.8	0.78	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.8	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.8	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.8	0.99	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.8	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.8	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.8	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.8	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.8	0.85	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.8	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.8	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.8	0.88	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.8	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.8	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.8	0.79	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.8	0.95	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.8	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.8	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.8	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.8	0.46	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.8	0.48	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.8	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.8	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.8	0.55	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.8	0.58	ug/kg	1
Toluene	108-88-3	8260B	ND		5.8	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.8	0.73	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.8	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.8	0.99	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.8	0.92	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-004
Description: REC 7a	Matrix: Solid
Date Sampled: 01/27/2014 1300	% Solids: 88.9 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1241	AAC		39504	4.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.8	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.8	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.8	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.8	3.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-004
Description: REC 7a	Matrix: Solid
Date Sampled: 01/27/2014 1300	% Solids: 88.9 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	10	02/06/2014 1542	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		370	120	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		370	120	ug/kg	1
Anthracene	120-12-7	8270D	ND		370	82	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		370	98	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		370	100	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		370	110	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		370	130	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		370	110	ug/kg	1
Chrysene	218-01-9	8270D	ND		370	120	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		370	100	ug/kg	1
Fluoranthene	206-44-0	8270D	180	J	370	120	ug/kg	1
Fluorene	86-73-7	8270D	ND		370	100	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		370	110	ug/kg	1
Naphthalene	91-20-3	8270D	ND		370	110	ug/kg	1
Phenanthrene	85-01-8	8270D	100	J	370	100	ug/kg	1
Pyrene	129-00-0	8270D	150	J	370	150	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		54	33-102
Nitrobenzene-d5		59	22-109
Terphenyl-d14		59	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-005
Description: REC 9 B-14	Matrix: Solid
Date Sampled: 01/27/2014 1455	% Solids: 77.5 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1315	AAC		39504	5.86

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.4	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.94	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.5	0.84	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.5	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.75	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.94	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.87	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-005
Description: REC 9 B-14	Matrix: Solid
Date Sampled: 01/27/2014 1455	% Solids: 77.5 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1315	AAC		39504	5.86

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.95	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	53-142
Bromofluorobenzene		98	47-138
Toluene-d8		114	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-005
Description: REC 9 B-14	Matrix: Solid
Date Sampled: 01/27/2014 1455	% Solids: 77.5 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1912	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		43	14	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		43	13	ug/kg	1
Anthracene	120-12-7	8270D	ND		43	9.5	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		43	11	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		43	12	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		43	12	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		43	15	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		43	12	ug/kg	1
Chrysene	218-01-9	8270D	ND		43	14	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		43	12	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		43	14	ug/kg	1
Fluorene	86-73-7	8270D	ND		43	12	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		43	13	ug/kg	1
Naphthalene	91-20-3	8270D	ND		43	13	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		43	12	ug/kg	1
Pyrene	129-00-0	8270D	ND		43	17	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		70	33-102
Nitrobenzene-d5		61	22-109
Terphenyl-d14		93	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-006
Description: REC 9 B-15	Matrix: Solid
Date Sampled: 01/27/2014 1515	% Solids: 79.3 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1340	AAC		39504	5.23

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		24	8.1	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.84	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.81	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.88	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.0	0.92	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.82	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.99	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.57	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.76	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.95	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-006
Description: REC 9 B-15	Matrix: Solid
Date Sampled: 01/27/2014 1515	% Solids: 79.3 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1340	AAC		39504	5.23

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		79	53-142
Bromofluorobenzene		72	47-138
Toluene-d8		81	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-006
Description: REC 9 B-15	Matrix: Solid
Date Sampled: 01/27/2014 1515	% Solids: 79.3 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1608	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		41	13	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		41	13	ug/kg	1
Anthracene	120-12-7	8270D	ND		41	9.3	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		41	11	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		41	12	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		41	12	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		41	15	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		41	12	ug/kg	1
Chrysene	218-01-9	8270D	ND		41	14	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		41	11	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		41	13	ug/kg	1
Fluorene	86-73-7	8270D	ND		41	11	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		41	12	ug/kg	1
Naphthalene	91-20-3	8270D	ND		41	13	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		41	11	ug/kg	1
Pyrene	129-00-0	8270D	ND		41	17	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		59	33-102
Nitrobenzene-d5		58	22-109
Terphenyl-d14		61	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-007
Description: REC 11 B-17	Matrix: Solid
Date Sampled: 01/27/2014 1620	% Solids: 85.4 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1404	AAC		39504	4.91

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	9.0	J	24	8.0	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.83	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	0.99	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.80	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.87	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.0	0.91	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.81	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.98	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.56	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.75	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.94	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-007
Description: REC 11 B-17	Matrix: Solid
Date Sampled: 01/27/2014 1620	% Solids: 85.4 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1404	AAC		39504	4.91

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		78	47-138
Toluene-d8		85	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-007
Description: REC 11 B-17	Matrix: Solid
Date Sampled: 01/27/2014 1620	% Solids: 85.4 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1634	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		38	12	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		38	12	ug/kg	1
Anthracene	120-12-7	8270D	ND		38	8.6	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		38	10	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		38	11	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		38	11	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		38	13	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		38	11	ug/kg	1
Chrysene	218-01-9	8270D	ND		38	13	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		38	11	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		38	12	ug/kg	1
Fluorene	86-73-7	8270D	ND		38	10	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		38	11	ug/kg	1
Naphthalene	91-20-3	8270D	ND		38	12	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		38	10	ug/kg	1
Pyrene	129-00-0	8270D	ND		38	15	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		86	33-102
Nitrobenzene-d5		79	22-109
Terphenyl-d14		101	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-008
Description: REC 11 B-18	Matrix: Solid
Date Sampled: 01/27/2014 1600	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1428	AAC		39504	4.91

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		27	8.9	ug/kg	1
Benzene	71-43-2	8260B	ND		6.6	1.5	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.6	2.3	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.6	0.93	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.6	2.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		13	3.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.6	1.7	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.6	2.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.6	2.3	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.6	1.7	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.6	1.1	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.6	1.3	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.6	0.90	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.6	2.0	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.6	2.3	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.6	1.1	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.6	2.3	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.6	2.3	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.6	2.3	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.6	2.1	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.6	0.97	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.6	1.3	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.6	2.3	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.6	1.0	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.6	2.0	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.6	1.2	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.6	0.90	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.6	1.1	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.6	2.3	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		13	1.7	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.6	0.31	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.6	1.3	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.6	0.53	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		13	2.0	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.6	0.55	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.6	3.5	ug/kg	1
Styrene	100-42-5	8260B	ND		6.6	1.5	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.6	0.63	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.6	0.66	ug/kg	1
Toluene	108-88-3	8260B	ND		6.6	2.3	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.6	0.84	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.6	2.3	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.6	1.1	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.6	1.1	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-008
Description: REC 11 B-18	Matrix: Solid
Date Sampled: 01/27/2014 1600	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1428	AAC		39504	4.91

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.6	2.5	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.6	2.0	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.6	1.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.6	3.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		79	47-138
Toluene-d8		86	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-008
Description: REC 11 B-18	Matrix: Solid
Date Sampled: 01/27/2014 1600	% Solids: 76.6 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1701	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		43	14	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		43	13	ug/kg	1
Anthracene	120-12-7	8270D	ND		43	9.5	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		43	11	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		43	12	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		43	12	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		43	15	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		43	12	ug/kg	1
Chrysene	218-01-9	8270D	ND		43	14	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		43	12	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		43	14	ug/kg	1
Fluorene	86-73-7	8270D	ND		43	12	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		43	13	ug/kg	1
Naphthalene	91-20-3	8270D	ND		43	13	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		43	12	ug/kg	1
Pyrene	129-00-0	8270D	ND		43	17	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		64	33-102
Nitrobenzene-d5		60	22-109
Terphenyl-d14		78	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-009
Description: REC 7 SW-1	Matrix: Aqueous
Date Sampled: 01/27/2014 1355	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 2015	ALL		39940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	23		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.53	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-009
Description: REC 7 SW-1	Matrix: Aqueous
Date Sampled: 01/27/2014 1355	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 2015	ALL		39940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-009
Description: REC 7 SW-1	Matrix: Aqueous
Date Sampled: 01/27/2014 1355	
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	02/03/2014 1521	DRB1	01/31/2014 1716	39534

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		0.20	0.072	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.20	0.041	ug/L	1
Anthracene	120-12-7	8270D	0.056	J	0.20	0.036	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.20	0.082	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	0.16	J	0.20	0.047	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	0.25		0.20	0.087	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.20	0.049	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.20	0.092	ug/L	1
Chrysene	218-01-9	8270D	ND		0.20	0.054	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.20	0.058	ug/L	1
Fluoranthene	206-44-0	8270D	0.10	J	0.20	0.077	ug/L	1
Fluorene	86-73-7	8270D	ND		0.20	0.049	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.20	0.039	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.20	0.074	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.20	0.058	ug/L	1
Pyrene	129-00-0	8270D	0.081	J	0.20	0.075	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		103	37-129
Nitrobenzene-d5		105	38-127
Terphenyl-d14		106	10-148

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-010
Description: REC 3 B-5 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1445	% Solids: 80.1 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1452	AAC		39504	6.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	53		19	6.3	ug/kg	1
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.7	0.66	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.4	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.7	0.78	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.94	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.7	0.64	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.80	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.7	0.69	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.94	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.7	0.72	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.7	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.86	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.64	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.77	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.7	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.4	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.7	0.92	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.4	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.7	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.7	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.44	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.7	0.47	ug/kg	1
Toluene	108-88-3	8260B	ND		4.7	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.59	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.80	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.74	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-010
Description: REC 3 B-5 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1445	% Solids: 80.1 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1452	AAC		39504	6.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.7	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.7	0.81	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.7	2.7	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		81	47-138
Toluene-d8		88	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-011
Description: REC 3 B-6 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1530	% Solids: 82.4 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1517	AAC		39504	6.19

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	120		20	6.6	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.69	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	5.8	J	9.8	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.9	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.81	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.98	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.9	0.66	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.72	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.98	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.9	0.74	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.89	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.67	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.80	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.9	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.8	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.9	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.96	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.8	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.62	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.77	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-011
Description: REC 3 B-6 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1530	% Solids: 82.4 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1517	AAC		39504	6.19

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.9	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.84	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.9	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		80	47-138
Toluene-d8		87	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-012
Description: REC 3 B-7 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1605	% Solids: 83.7 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1541	AAC		39504	6.29

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	57		19	6.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.7	0.66	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	5.4	J	9.5	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.7	0.79	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.95	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.7	0.64	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.81	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.7	0.69	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.95	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.7	0.72	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.7	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.86	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.65	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.78	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.7	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.5	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.7	0.93	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.5	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.7	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.7	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.7	0.47	ug/kg	1
Toluene	108-88-3	8260B	3.3	J	4.7	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.60	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.81	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.75	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA29015-012
Description: REC 3 B-7 (9-10)	Matrix: Solid
Date Sampled: 01/27/2014 1605	% Solids: 83.7 01/29/2014 1710
Date Received: 01/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	01/31/2014 1541	AAC		39504	6.29

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.7	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.7	0.82	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.7	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		83	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39504-001

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	01/31/2014 1154
Benzene	ND		1	5.0	1.1	ug/kg	01/31/2014 1154
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
Bromoform	ND		1	5.0	0.70	ug/kg	01/31/2014 1154
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	01/31/2014 1154
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	01/31/2014 1154
Carbon disulfide	ND		1	5.0	1.3	ug/kg	01/31/2014 1154
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	01/31/2014 1154
Chlorobenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
Chloroethane	ND		1	5.0	1.3	ug/kg	01/31/2014 1154
Chloroform	ND		1	5.0	0.83	ug/kg	01/31/2014 1154
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	01/31/2014 1154
Cyclohexane	ND		1	5.0	0.67	ug/kg	01/31/2014 1154
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	01/31/2014 1154
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	01/31/2014 1154
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	01/31/2014 1154
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	01/31/2014 1154
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	01/31/2014 1154
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	01/31/2014 1154
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	01/31/2014 1154
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	01/31/2014 1154
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	01/31/2014 1154
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	01/31/2014 1154
Ethylbenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
2-Hexanone	1.5	J	1	10	1.3	ug/kg	01/31/2014 1154
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	01/31/2014 1154
Methyl acetate	ND		1	5.0	0.98	ug/kg	01/31/2014 1154
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	01/31/2014 1154
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	01/31/2014 1154
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	01/31/2014 1154
Methylene chloride	ND		1	5.0	2.6	ug/kg	01/31/2014 1154
Styrene	ND		1	5.0	1.1	ug/kg	01/31/2014 1154
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	01/31/2014 1154
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	01/31/2014 1154
Toluene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	01/31/2014 1154
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	01/31/2014 1154
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	01/31/2014 1154
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	01/31/2014 1154

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39504-001

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	01/31/2014 1154
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	01/31/2014 1154
Vinyl chloride	ND		1	5.0	0.86	ug/kg	01/31/2014 1154
Xylenes (total)	ND		1	5.0	2.9	ug/kg	01/31/2014 1154
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		89	47-138				
1,2-Dichloroethane-d4		96	53-142				
Toluene-d8		99	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39504-002

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	127	60-140	01/31/2014 1020
Benzene	50	48		1	95	69-123	01/31/2014 1020
Bromodichloromethane	50	48		1	96	69-121	01/31/2014 1020
Bromoform	50	49		1	99	61-119	01/31/2014 1020
Bromomethane (Methyl bromide)	50	51		1	101	10-168	01/31/2014 1020
2-Butanone (MEK)	100	110		1	109	57-148	01/31/2014 1020
Carbon disulfide	50	52		1	104	58-122	01/31/2014 1020
Carbon tetrachloride	50	49		1	99	58-136	01/31/2014 1020
Chlorobenzene	50	46		1	93	59-129	01/31/2014 1020
Chloroethane	50	53		1	106	42-163	01/31/2014 1020
Chloroform	50	48		1	95	71-125	01/31/2014 1020
Chloromethane (Methyl chloride)	50	50		1	99	34-134	01/31/2014 1020
Cyclohexane	50	51		1	102	53-139	01/31/2014 1020
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	103	55-125	01/31/2014 1020
Dibromochloromethane	50	46		1	93	66-119	01/31/2014 1020
1,2-Dibromoethane (EDB)	50	47		1	94	74-124	01/31/2014 1020
1,3-Dichlorobenzene	50	45		1	90	51-134	01/31/2014 1020
1,4-Dichlorobenzene	50	45		1	90	52-133	01/31/2014 1020
1,2-Dichlorobenzene	50	46		1	91	57-131	01/31/2014 1020
Dichlorodifluoromethane	50	57		1	113	10-157	01/31/2014 1020
1,1-Dichloroethane	50	48		1	96	71-127	01/31/2014 1020
1,2-Dichloroethane	50	47		1	93	67-129	01/31/2014 1020
cis-1,2-Dichloroethene	50	48		1	96	70-122	01/31/2014 1020
1,1-Dichloroethene	50	51		1	102	69-138	01/31/2014 1020
trans-1,2-Dichloroethene	50	48		1	97	68-131	01/31/2014 1020
1,2-Dichloropropane	50	47		1	95	72-124	01/31/2014 1020
trans-1,3-Dichloropropene	50	47		1	94	70-124	01/31/2014 1020
cis-1,3-Dichloropropene	50	50		1	99	70-126	01/31/2014 1020
Ethylbenzene	50	46		1	93	59-128	01/31/2014 1020
2-Hexanone	100	110		1	107	54-137	01/31/2014 1020
Isopropylbenzene	50	46		1	91	50-136	01/31/2014 1020
Methyl acetate	50	53		1	107	59-137	01/31/2014 1020
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	01/31/2014 1020
4-Methyl-2-pentanone	100	110		1	108	60-134	01/31/2014 1020
Methylcyclohexane	50	50		1	99	41-144	01/31/2014 1020
Methylene chloride	50	46		1	93	70-130	01/31/2014 1020
Styrene	50	47		1	95	54-136	01/31/2014 1020
1,1,2,2-Tetrachloroethane	50	47		1	93	69-132	01/31/2014 1020
Tetrachloroethene	50	43		1	86	45-150	01/31/2014 1020
Toluene	50	48		1	96	61-129	01/31/2014 1020
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	103	49-136	01/31/2014 1020
1,2,4-Trichlorobenzene	50	47		1	95	34-145	01/31/2014 1020
1,1,1-Trichloroethane	50	49		1	99	63-128	01/31/2014 1020
1,1,2-Trichloroethane	50	44		1	87	55-128	01/31/2014 1020

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39504-002

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	95	62-126	01/31/2014 1020
Trichlorofluoromethane	50	52		1	104	45-138	01/31/2014 1020
Vinyl chloride	50	56		1	112	42-132	01/31/2014 1020
Xylenes (total)	100	93		1	93	58-128	01/31/2014 1020
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	47-138				
1,2-Dichloroethane-d4		105	53-142				
Toluene-d8		110	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39504-003

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	114	11	60-140	20	01/31/2014 1044
Benzene	50	38	+	1	77	22	69-123	20	01/31/2014 1044
Bromodichloromethane	50	39		1	78	20	69-121	20	01/31/2014 1044
Bromoform	50	42		1	85	15	61-119	20	01/31/2014 1044
Bromomethane (Methyl bromide)	50	41		1	82	20	10-168	20	01/31/2014 1044
2-Butanone (MEK)	100	95		1	95	13	57-148	20	01/31/2014 1044
Carbon disulfide	50	39	+	1	78	29	58-122	20	01/31/2014 1044
Carbon tetrachloride	50	39	+	1	78	24	58-136	20	01/31/2014 1044
Chlorobenzene	50	38		1	77	19	59-129	20	01/31/2014 1044
Chloroethane	50	41	+	1	82	25	42-163	20	01/31/2014 1044
Chloroform	50	39	+	1	77	21	71-125	20	01/31/2014 1044
Chloromethane (Methyl chloride)	50	40	+	1	79	22	34-134	20	01/31/2014 1044
Cyclohexane	50	39	+	1	77	28	53-139	20	01/31/2014 1044
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	90	14	55-125	20	01/31/2014 1044
Dibromochloromethane	50	40		1	81	14	66-119	20	01/31/2014 1044
1,2-Dibromoethane (EDB)	50	41		1	81	14	74-124	20	01/31/2014 1044
1,3-Dichlorobenzene	50	38		1	76	16	51-134	20	01/31/2014 1044
1,4-Dichlorobenzene	50	38		1	76	16	52-133	20	01/31/2014 1044
1,2-Dichlorobenzene	50	39		1	77	16	57-131	20	01/31/2014 1044
Dichlorodifluoromethane	50	43	+	1	86	27	10-157	20	01/31/2014 1044
1,1-Dichloroethane	50	39		1	78	20	71-127	20	01/31/2014 1044
1,2-Dichloroethane	50	40		1	79	17	67-129	20	01/31/2014 1044
cis-1,2-Dichloroethene	50	39	+	1	78	21	70-122	20	01/31/2014 1044
1,1-Dichloroethene	50	40	+	1	80	24	69-138	20	01/31/2014 1044
trans-1,2-Dichloroethene	50	39	+	1	78	22	68-131	20	01/31/2014 1044
1,2-Dichloropropane	50	39		1	79	18	72-124	20	01/31/2014 1044
trans-1,3-Dichloropropene	50	40		1	81	15	70-124	20	01/31/2014 1044
cis-1,3-Dichloropropene	50	41		1	82	19	70-126	20	01/31/2014 1044
Ethylbenzene	50	38		1	76	20	59-128	20	01/31/2014 1044
2-Hexanone	100	95		1	95	12	54-137	20	01/31/2014 1044
Isopropylbenzene	50	38		1	76	18	50-136	20	01/31/2014 1044
Methyl acetate	50	46		1	91	16	59-137	20	01/31/2014 1044
Methyl tertiary butyl ether (MTBE)	50	41		1	82	15	70-130	20	01/31/2014 1044
4-Methyl-2-pentanone	100	94		1	94	13	60-134	20	01/31/2014 1044
Methylcyclohexane	50	39	+	1	79	23	41-144	20	01/31/2014 1044
Methylene chloride	50	38		1	76	20	70-130	20	01/31/2014 1044
Styrene	50	39		1	79	18	54-136	20	01/31/2014 1044
1,1,2,2-Tetrachloroethane	50	42		1	84	11	69-132	20	01/31/2014 1044
Tetrachloroethene	50	36		1	71	19	45-150	20	01/31/2014 1044
Toluene	50	39		1	78	20	61-129	20	01/31/2014 1044
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	42		1	84	20	49-136	20	01/31/2014 1044
1,2,4-Trichlorobenzene	50	38	+	1	76	22	34-145	20	01/31/2014 1044
1,1,1-Trichloroethane	50	39	+	1	78	23	63-128	20	01/31/2014 1044
1,1,2-Trichloroethane	50	39		1	77	12	55-128	20	01/31/2014 1044

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39504-003

Matrix: Solid

Batch: 39504

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	38	+	1	76	23	62-126	20	01/31/2014 1044
Trichlorofluoromethane	50	40	+	1	80	26	45-138	20	01/31/2014 1044
Vinyl chloride	50	43	+	1	85	27	42-132	20	01/31/2014 1044
Xylenes (total)	100	77		1	77	20	58-128	20	01/31/2014 1044
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		85	47-138						
1,2-Dichloroethane-d4		89	53-142						
Toluene-d8		95	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39940-001

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	02/06/2014 1215
Benzene	ND		1	5.0	0.20	ug/L	02/06/2014 1215
Bromodichloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Bromoform	ND		1	5.0	0.40	ug/L	02/06/2014 1215
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	02/06/2014 1215
2-Butanone (MEK)	ND		1	10	1.8	ug/L	02/06/2014 1215
Carbon disulfide	ND		1	5.0	0.30	ug/L	02/06/2014 1215
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	02/06/2014 1215
Chlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Chloroethane	ND		1	5.0	0.50	ug/L	02/06/2014 1215
Chloroform	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	02/06/2014 1215
Cyclohexane	ND		1	5.0	0.98	ug/L	02/06/2014 1215
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	02/06/2014 1215
Dibromochloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 1215
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	02/06/2014 1215
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	02/06/2014 1215
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 1215
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	02/06/2014 1215
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	02/06/2014 1215
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 1215
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 1215
Ethylbenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
2-Hexanone	ND		1	10	1.0	ug/L	02/06/2014 1215
Isopropylbenzene	ND		1	5.0	1.0	ug/L	02/06/2014 1215
Methyl acetate	ND		1	5.0	0.72	ug/L	02/06/2014 1215
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	02/06/2014 1215
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	02/06/2014 1215
Methylcyclohexane	ND		1	5.0	0.95	ug/L	02/06/2014 1215
Methylene chloride	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Styrene	ND		1	5.0	0.10	ug/L	02/06/2014 1215
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	02/06/2014 1215
Tetrachloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 1215
Toluene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 1215
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	02/06/2014 1215

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39940-001

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	02/06/2014 1215
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	02/06/2014 1215
Vinyl chloride	ND		1	2.0	0.10	ug/L	02/06/2014 1215
Xylenes (total)	ND		1	5.0	1.7	ug/L	02/06/2014 1215
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		100	70-130				
1,2-Dichloroethane-d4		95	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39940-002

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	107	60-140	02/06/2014 1037
Benzene	50	52		1	103	70-130	02/06/2014 1037
Bromodichloromethane	50	52		1	105	70-130	02/06/2014 1037
Bromoform	50	51		1	103	70-130	02/06/2014 1037
Bromomethane (Methyl bromide)	50	51		1	103	60-140	02/06/2014 1037
2-Butanone (MEK)	100	110		1	106	60-140	02/06/2014 1037
Carbon disulfide	50	54		1	108	60-140	02/06/2014 1037
Carbon tetrachloride	50	52		1	105	70-130	02/06/2014 1037
Chlorobenzene	50	50		1	100	70-130	02/06/2014 1037
Chloroethane	50	56		1	112	42-163	02/06/2014 1037
Chloroform	50	52		1	105	70-130	02/06/2014 1037
Chloromethane (Methyl chloride)	50	59		1	117	60-140	02/06/2014 1037
Cyclohexane	50	53		1	106	70-130	02/06/2014 1037
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	95	70-130	02/06/2014 1037
Dibromochloromethane	50	52		1	104	70-130	02/06/2014 1037
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	02/06/2014 1037
1,4-Dichlorobenzene	50	50		1	99	70-130	02/06/2014 1037
1,2-Dichlorobenzene	50	50		1	101	70-130	02/06/2014 1037
1,3-Dichlorobenzene	50	50		1	99	70-130	02/06/2014 1037
Dichlorodifluoromethane	50	67		1	134	60-140	02/06/2014 1037
1,2-Dichloroethane	50	54		1	108	70-130	02/06/2014 1037
1,1-Dichloroethane	50	52		1	105	70-130	02/06/2014 1037
trans-1,2-Dichloroethene	50	52		1	104	70-130	02/06/2014 1037
1,1-Dichloroethene	50	52		1	103	70-130	02/06/2014 1037
cis-1,2-Dichloroethene	50	52		1	105	70-130	02/06/2014 1037
1,2-Dichloropropane	50	51		1	103	70-130	02/06/2014 1037
trans-1,3-Dichloropropene	50	51		1	102	70-130	02/06/2014 1037
cis-1,3-Dichloropropene	50	53		1	107	70-130	02/06/2014 1037
Ethylbenzene	50	51		1	102	70-130	02/06/2014 1037
2-Hexanone	100	100		1	104	60-140	02/06/2014 1037
Isopropylbenzene	50	50		1	100	70-130	02/06/2014 1037
Methyl acetate	50	51		1	102	70-130	02/06/2014 1037
Methyl tertiary butyl ether (MTBE)	50	53		1	107	70-130	02/06/2014 1037
4-Methyl-2-pentanone	100	110		1	108	60-140	02/06/2014 1037
Methylcyclohexane	50	52		1	104	70-130	02/06/2014 1037
Methylene chloride	50	54		1	108	70-130	02/06/2014 1037
Styrene	50	52		1	104	70-130	02/06/2014 1037
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	02/06/2014 1037
Tetrachloroethene	50	49		1	99	70-130	02/06/2014 1037
Toluene	50	51		1	103	70-130	02/06/2014 1037
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	118	70-130	02/06/2014 1037
1,2,4-Trichlorobenzene	50	48		1	97	70-130	02/06/2014 1037
1,1,2-Trichloroethane	50	50		1	101	70-130	02/06/2014 1037
1,1,1-Trichloroethane	50	53		1	105	70-130	02/06/2014 1037

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39940-002

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	101	70-130	02/06/2014 1037
Trichlorofluoromethane	50	56		1	113	70-130	02/06/2014 1037
Vinyl chloride	50	60		1	120	70-130	02/06/2014 1037
Xylenes (total)	100	100		1	102	70-130	02/06/2014 1037
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		102	70-130				
1,2-Dichloroethane-d4		97	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39940-003

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	88		1	88	19	60-140	20	02/06/2014 1100
Benzene	50	47		1	94	9.2	70-130	20	02/06/2014 1100
Bromodichloromethane	50	47		1	94	11	70-130	20	02/06/2014 1100
Bromoform	50	46		1	92	11	70-130	20	02/06/2014 1100
Bromomethane (Methyl bromide)	50	45		1	90	13	60-140	20	02/06/2014 1100
2-Butanone (MEK)	100	92		1	92	14	60-140	20	02/06/2014 1100
Carbon disulfide	50	49		1	98	9.8	60-140	20	02/06/2014 1100
Carbon tetrachloride	50	47		1	94	11	70-130	20	02/06/2014 1100
Chlorobenzene	50	46		1	92	8.8	70-130	20	02/06/2014 1100
Chloroethane	50	49		1	97	14	42-163	20	02/06/2014 1100
Chloroform	50	46		1	92	13	70-130	20	02/06/2014 1100
Chloromethane (Methyl chloride)	50	51		1	103	13	60-140	20	02/06/2014 1100
Cyclohexane	50	48		1	96	9.8	70-130	20	02/06/2014 1100
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	13	70-130	20	02/06/2014 1100
Dibromochloromethane	50	47		1	93	11	70-130	20	02/06/2014 1100
1,2-Dibromoethane (EDB)	50	47		1	94	12	70-130	20	02/06/2014 1100
1,4-Dichlorobenzene	50	43		1	86	14	70-130	20	02/06/2014 1100
1,2-Dichlorobenzene	50	44		1	87	14	70-130	20	02/06/2014 1100
1,3-Dichlorobenzene	50	43		1	87	13	70-130	20	02/06/2014 1100
Dichlorodifluoromethane	50	60		1	121	11	60-140	20	02/06/2014 1100
1,2-Dichloroethane	50	47		1	93	15	70-130	20	02/06/2014 1100
1,1-Dichloroethane	50	46		1	92	13	70-130	20	02/06/2014 1100
trans-1,2-Dichloroethene	50	46		1	92	13	70-130	20	02/06/2014 1100
1,1-Dichloroethene	50	47		1	93	10	70-130	20	02/06/2014 1100
cis-1,2-Dichloroethene	50	46		1	93	12	70-130	20	02/06/2014 1100
1,2-Dichloropropane	50	46		1	92	11	70-130	20	02/06/2014 1100
trans-1,3-Dichloropropene	50	45		1	91	12	70-130	20	02/06/2014 1100
cis-1,3-Dichloropropene	50	48		1	96	11	70-130	20	02/06/2014 1100
Ethylbenzene	50	47		1	93	8.8	70-130	20	02/06/2014 1100
2-Hexanone	100	92		1	92	13	60-140	20	02/06/2014 1100
Isopropylbenzene	50	44		1	89	12	70-130	20	02/06/2014 1100
Methyl acetate	50	44		1	88	15	70-130	20	02/06/2014 1100
Methyl tertiary butyl ether (MTBE)	50	46		1	92	15	70-130	20	02/06/2014 1100
4-Methyl-2-pentanone	100	95		1	95	13	60-140	20	02/06/2014 1100
Methylcyclohexane	50	49		1	97	6.6	70-130	20	02/06/2014 1100
Methylene chloride	50	46		1	93	15	70-130	20	02/06/2014 1100
Styrene	50	47		1	94	10	70-130	20	02/06/2014 1100
1,1,2,2-Tetrachloroethane	50	43		1	86	15	70-130	20	02/06/2014 1100
Tetrachloroethene	50	45		1	90	9.1	70-130	20	02/06/2014 1100
Toluene	50	47		1	93	9.8	70-130	20	02/06/2014 1100
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	13	70-130	20	02/06/2014 1100
1,2,4-Trichlorobenzene	50	41		1	83	16	70-130	20	02/06/2014 1100
1,1,2-Trichloroethane	50	44		1	89	12	70-130	20	02/06/2014 1100
1,1,1-Trichloroethane	50	46		1	93	13	70-130	20	02/06/2014 1100

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39940-003

Matrix: Aqueous

Batch: 39940

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	93	7.5	70-130	20	02/06/2014 1100
Trichlorofluoromethane	50	50		1	101	11	70-130	20	02/06/2014 1100
Vinyl chloride	50	53		1	106	12	70-130	20	02/06/2014 1100
Xylenes (total)	100	93		1	93	9.0	70-130	20	02/06/2014 1100
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		89	70-130						
1,2-Dichloroethane-d4		86	70-130						
Toluene-d8		91	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: PQ39534-001

Matrix: Aqueous

Batch: 39534

Prep Method: 3520C

Analytical Method: 8270D

Prep Date: 01/31/2014 1716

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acenaphthene	ND		1	0.20	0.072	ug/L	02/03/2014 1011
Acenaphthylene	ND		1	0.20	0.041	ug/L	02/03/2014 1011
Anthracene	ND		1	0.20	0.036	ug/L	02/03/2014 1011
Benzo(a)anthracene	ND		1	0.20	0.082	ug/L	02/03/2014 1011
Benzo(a)pyrene	ND		1	0.20	0.047	ug/L	02/03/2014 1011
Benzo(b)fluoranthene	ND		1	0.20	0.087	ug/L	02/03/2014 1011
Benzo(g,h,i)perylene	ND		1	0.20	0.049	ug/L	02/03/2014 1011
Benzo(k)fluoranthene	ND		1	0.20	0.092	ug/L	02/03/2014 1011
Chrysene	ND		1	0.20	0.054	ug/L	02/03/2014 1011
Dibenzo(a,h)anthracene	ND		1	0.20	0.058	ug/L	02/03/2014 1011
Fluoranthene	ND		1	0.20	0.077	ug/L	02/03/2014 1011
Fluorene	ND		1	0.20	0.049	ug/L	02/03/2014 1011
Indeno(1,2,3-c,d)pyrene	ND		1	0.20	0.039	ug/L	02/03/2014 1011
Naphthalene	ND		1	0.20	0.074	ug/L	02/03/2014 1011
Phenanthrene	ND		1	0.20	0.058	ug/L	02/03/2014 1011
Pyrene	ND		1	0.20	0.075	ug/L	02/03/2014 1011
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		100	37-129				
Nitrobenzene-d5		102	38-127				
Terphenyl-d14		108	10-148				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39534-002

Matrix: Aqueous

Batch: 39534

Prep Method: 3520C

Analytical Method: 8270D

Prep Date: 01/31/2014 1716

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	20	20		1	101	51-130	02/03/2014 1036
Acenaphthylene	20	22		1	108	46-131	02/03/2014 1036
Anthracene	20	21		1	105	48-122	02/03/2014 1036
Benzo(a)anthracene	20	21		1	106	50-143	02/03/2014 1036
Benzo(a)pyrene	20	20		1	99	55-141	02/03/2014 1036
Benzo(b)fluoranthene	20	22		1	112	48-147	02/03/2014 1036
Benzo(g,h,i)perylene	20	20		1	98	48-139	02/03/2014 1036
Benzo(k)fluoranthene	20	26		1	130	48-148	02/03/2014 1036
Chrysene	20	21		1	103	51-137	02/03/2014 1036
Dibenzo(a,h)anthracene	20	21		1	107	48-139	02/03/2014 1036
Fluoranthene	20	21		1	104	50-124	02/03/2014 1036
Fluorene	20	21		1	105	39-122	02/03/2014 1036
Indeno(1,2,3-c,d)pyrene	20	21		1	106	49-146	02/03/2014 1036
Naphthalene	20	19		1	93	45-118	02/03/2014 1036
Phenanthrene	20	20		1	100	49-122	02/03/2014 1036
Pyrene	20	22		1	111	50-130	02/03/2014 1036
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		102	37-129				
Nitrobenzene-d5		117	38-127				
Terphenyl-d14		119	10-148				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: PA29015-009MS

Matrix: Aqueous

Batch: 39534

Prep Method: 3520C

Analytical Method: 8270D

Prep Date: 01/31/2014 1716

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	ND	40	42		1	104	10-133	02/03/2014 1546
Acenaphthylene	ND	40	44		1	109	34-128	02/03/2014 1546
Anthracene	0.056	40	40		1	100	48-122	02/03/2014 1546
Benzo(a)anthracene	ND	40	37		1	92	53-98	02/03/2014 1546
Benzo(a)pyrene	0.16	40	27		1	67	11-160	02/03/2014 1546
Benzo(b)fluoranthene	0.25	40	34		1	85	10-165	02/03/2014 1546
Benzo(g,h,i)perylene	ND	40	32		1	81	42-111	02/03/2014 1546
Benzo(k)fluoranthene	ND	40	38		1	95	13-175	02/03/2014 1546
Chrysene	ND	40	36		1	90	51-107	02/03/2014 1546
Dibenzo(a,h)anthracene	ND	40	32		1	81	47-116	02/03/2014 1546
Fluoranthene	0.10	40	41		1	102	50-124	02/03/2014 1546
Fluorene	ND	40	43		1	109	39-122	02/03/2014 1546
Indeno(1,2,3-c,d)pyrene	ND	40	31		1	78	43-113	02/03/2014 1546
Naphthalene	ND	40	37	N	1	93	46-89	02/03/2014 1546
Phenanthrene	ND	40	41		1	102	49-122	02/03/2014 1546
Pyrene	0.081	40	43		1	108	50-130	02/03/2014 1546
Surrogate	Q	% Rec	Acceptance Limit					
2-Fluorobiphenyl		103	37-129					
Nitrobenzene-d5		115	38-127					
Terphenyl-d14		96	10-148					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: PA29015-009MD

Matrix: Aqueous

Batch: 39534

Prep Method: 3520C

Analytical Method: 8270D

Prep Date: 01/31/2014 1716

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Acenaphthene	ND	40	41		1	102	1.6	10-133	40	02/03/2014 1611	
Acenaphthylene	ND	40	43		1	106	2.4	34-128	40	02/03/2014 1611	
Anthracene	0.056	40	40		1	100	0.15	48-122	40	02/03/2014 1611	
Benzo(a)anthracene	ND	40	36		1	91	0.81	53-98	40	02/03/2014 1611	
Benzo(a)pyrene	0.16	40	28		1	69	2.1	11-160	40	02/03/2014 1611	
Benzo(b)fluoranthene	0.25	40	37		1	92	7.4	10-165	40	02/03/2014 1611	
Benzo(g,h,i)perylene	ND	40	34		1	85	4.4	42-111	40	02/03/2014 1611	
Benzo(k)fluoranthene	ND	40	41		1	101	6.9	13-175	40	02/03/2014 1611	
Chrysene	ND	40	36		1	90	0.56	51-107	40	02/03/2014 1611	
Dibenzo(a,h)anthracene	ND	40	35		1	86	6.4	47-116	40	02/03/2014 1611	
Fluoranthene	0.10	40	41		1	101	0.70	50-124	40	02/03/2014 1611	
Fluorene	ND	40	43		1	108	0.15	39-122	40	02/03/2014 1611	
Indeno(1,2,3-c,d)pyrene	ND	40	34		1	84	8.1	43-113	40	02/03/2014 1611	
Naphthalene	ND	40	36	N	1	91	2.7	46-89	40	02/03/2014 1611	
Phenanthrene	ND	40	41		1	103	0.26	49-122	40	02/03/2014 1611	
Pyrene	0.081	40	43		1	107	1.2	50-130	40	02/03/2014 1611	
Surrogate	Q	% Rec	Acceptance Limit								
2-Fluorobiphenyl		102	37-129								
Nitrobenzene-d5		112	38-127								
Terphenyl-d14		101	10-148								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: PQ39883-001

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acenaphthene	ND		1	33	11	ug/kg	02/06/2014 0933
Acenaphthylene	ND		1	33	10	ug/kg	02/06/2014 0933
Anthracene	ND		1	33	7.4	ug/kg	02/06/2014 0933
Benzo(a)anthracene	ND		1	33	8.8	ug/kg	02/06/2014 0933
Benzo(a)pyrene	ND		1	33	9.3	ug/kg	02/06/2014 0933
Benzo(b)fluoranthene	ND		1	33	9.6	ug/kg	02/06/2014 0933
Benzo(g,h,i)perylene	ND		1	33	12	ug/kg	02/06/2014 0933
Benzo(k)fluoranthene	ND		1	33	9.5	ug/kg	02/06/2014 0933
Chrysene	ND		1	33	11	ug/kg	02/06/2014 0933
Dibenzo(a,h)anthracene	ND		1	33	9.1	ug/kg	02/06/2014 0933
Fluoranthene	ND		1	33	11	ug/kg	02/06/2014 0933
Fluorene	ND		1	33	9.0	ug/kg	02/06/2014 0933
Indeno(1,2,3-c,d)pyrene	ND		1	33	9.7	ug/kg	02/06/2014 0933
Naphthalene	ND		1	33	10	ug/kg	02/06/2014 0933
Phenanthrene	ND		1	33	9.0	ug/kg	02/06/2014 0933
Pyrene	ND		1	33	13	ug/kg	02/06/2014 0933
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		82	33-102				
Nitrobenzene-d5		77	22-109				
Terphenyl-d14		89	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39883-002

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	670	480		1	72	46-114	02/06/2014 0956
Acenaphthylene	670	550		1	83	44-122	02/06/2014 0956
Anthracene	670	560		1	84	50-119	02/06/2014 0956
Benzo(a)anthracene	670	560		1	84	47-121	02/06/2014 0956
Benzo(a)pyrene	670	620		1	93	55-134	02/06/2014 0956
Benzo(b)fluoranthene	670	650		1	97	28-139	02/06/2014 0956
Benzo(g,h,i)perylene	670	530		1	80	36-125	02/06/2014 0956
Benzo(k)fluoranthene	670	640		1	97	47-130	02/06/2014 0956
Chrysene	670	540		1	81	45-126	02/06/2014 0956
Dibenzo(a,h)anthracene	670	580		1	87	30-130	02/06/2014 0956
Fluoranthene	670	570		1	85	50-123	02/06/2014 0956
Fluorene	670	500		1	76	48-117	02/06/2014 0956
Indeno(1,2,3-c,d)pyrene	670	570		1	85	45-123	02/06/2014 0956
Naphthalene	670	450		1	67	36-110	02/06/2014 0956
Phenanthrene	670	530		1	79	49-117	02/06/2014 0956
Pyrene	670	550		1	83	47-119	02/06/2014 0956
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		72	33-102				
Nitrobenzene-d5		72	22-109				
Terphenyl-d14		89	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - MB

Sample ID: PQ39483-001

Matrix: Solid

Batch: 39483

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 01/30/2014 1905

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Aroclor 1016	ND		1	17	1.1	ug/kg	01/31/2014 0938
Aroclor 1221	ND		1	17	9.7	ug/kg	01/31/2014 0938
Aroclor 1232	ND		1	17	3.3	ug/kg	01/31/2014 0938
Aroclor 1242	ND		1	17	2.3	ug/kg	01/31/2014 0938
Aroclor 1248	ND		1	17	3.8	ug/kg	01/31/2014 0938
Aroclor 1254	ND		1	17	1.8	ug/kg	01/31/2014 0938
Aroclor 1260	ND		1	17	5.7	ug/kg	01/31/2014 0938
Surrogate	Q	% Rec	Acceptance Limit				
Decachlorobiphenyl		85	41-132				
Tetrachloro-m-xylene		80	35-106				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - LCS

Sample ID: PQ39483-002

Matrix: Solid

Batch: 39483

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 01/30/2014 1905

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aroclor 1016	83	75		1	90	70-130	01/31/2014 0949
Aroclor 1260	83	84		1	102	70-130	01/31/2014 0949
Surrogate	Q	% Rec	Acceptance Limit				
Decachlorobiphenyl		87	41-132				
Tetrachloro-m-xylene		76	35-106				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 13

Page 1 of 1
 Replaces Date: 09/24/13
 Effective Date: 09/26/13

Sample Receipt Checklist (SRC)

Client: AT&T Cooler Inspected by/date: KMM/12/11/14 Lot #: PA29015
+NMS

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other			
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?	
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>071081</u> °C / / °C / / °C / / °C			
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>#3</u> IR Gun Correction Factor: <u>0.1</u> °C			
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		6. Were sample IDs listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		7. Was collection date & time listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		8. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		9. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		10. Did all container label information (ID, date, time) agree with COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		12. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		13. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		14. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		15. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	16. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	19. Were all applicable NH3/TKN/cyanide/phcnol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	20. Were collection temperatures documented on the COC for NC samples?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) _____			
Sample(s) _____ were received with bubbles >6 mm in diameter.			
Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phcnol			
Sample labels verified by: _____		Date: _____	

Corrective Action taken, if necessary:

Was client notified: Yes No

Did client respond: Yes No

SESI employee: _____

Date of response: _____

Comments: _____

Report of Analysis

AECOM

810 Dutch Square Blvd.
Suite 202
Columbia, SC 29210
Attention: Scott Ross

Project Name: **Phae II ESA - Shakespear**

Lot Number: **PA31056**

Date Completed: **02/11/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PA31056 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PA31056

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PA31056

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-3	Aqueous	01/30/2014 1348	01/31/2014
002	TMW-4	Aqueous	01/30/2014 1430	01/31/2014
003	TMW-2	Aqueous	01/30/2014 1625	01/31/2014
004	TMW-1	Aqueous	01/30/2014 1740	01/31/2014
005	REC-10 B-16 (10-11)	Solid	01/31/2014 1000	01/31/2014
006	REC-4 B-8 (2-4)	Solid	01/31/2014 0930	01/31/2014
007	REC-11b B-19 (0-2)	Solid	01/31/2014 1100	01/31/2014
008	REC-5c B-11 (12-13)	Solid	01/31/2014 1320	01/31/2014
009	REC-5a B-9 (10-11)	Solid	01/31/2014 1600	01/31/2014
010	TB-01-013114	Aqueous	01/31/2014	01/31/2014
011	REC-8a B-12 (2-4)	Solid	01/31/2014 1520	01/31/2014
012	REC-8b B-13 (1-3)	Solid	01/31/2014 1350	01/31/2014
013	REC-5B B-10 (10-11)	Solid	01/31/2014 1700	01/31/2014
014	REC-2 B-3a (5-6)	Solid	01/31/2014 1700	01/31/2014

(14 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PA31056

Sample ID	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-3	Aqueous	Acetone	8260B	15	J	ug/L	6
001	TMW-3	Aqueous	Benzene	8260B	0.42	J	ug/L	6
001	TMW-3	Aqueous	1,1-Dichloroethene	8260B	0.73	J	ug/L	6
001	TMW-3	Aqueous	cis-1,2-Dichloroethene	8260B	19		ug/L	6
001	TMW-3	Aqueous	trans-1,2-Dichloroethene	8260B	1.3	J	ug/L	6
001	TMW-3	Aqueous	Styrene	8260B	0.34	J	ug/L	6
001	TMW-3	Aqueous	Trichloroethene	8260B	7.9		ug/L	7
001	TMW-3	Aqueous	Vinyl chloride	8260B	0.27	J	ug/L	7
002	TMW-4	Aqueous	cis-1,2-Dichloroethene	8260B	7.1		ug/L	8
002	TMW-4	Aqueous	Styrene	8260B	0.11	J	ug/L	8
002	TMW-4	Aqueous	Trichloroethene	8260B	2.1	J	ug/L	9
003	TMW-2	Aqueous	Styrene	8260B	0.29	J	ug/L	10
003	TMW-2	Aqueous	Vinyl chloride	8260B	0.68	J	ug/L	11
004	TMW-1	Aqueous	Acetone	8260B	10	J	ug/L	12
004	TMW-1	Aqueous	cis-1,2-Dichloroethene	8260B	0.42	J	ug/L	12
004	TMW-1	Aqueous	Styrene	8260B	1.6	J	ug/L	12
005	REC-10 B-16 (10-11)	Solid	Acetone	8260B	23		ug/kg	14
005	REC-10 B-16 (10-11)	Solid	cis-1,2-Dichloroethene	8260B	380		ug/kg	14
005	REC-10 B-16 (10-11)	Solid	trans-1,2-Dichloroethene	8260B	9.2		ug/kg	14
005	REC-10 B-16 (10-11)	Solid	Ethylbenzene	8260B	1.6	J	ug/kg	14
005	REC-10 B-16 (10-11)	Solid	Styrene	8260B	5.9		ug/kg	14
005	REC-10 B-16 (10-11)	Solid	Trichloroethene	8260B	7.3		ug/kg	15
005	REC-10 B-16 (10-11)	Solid	Vinyl chloride	8260B	1.6	J	ug/kg	15
005	REC-10 B-16 (10-11)	Solid	Xylenes (total)	8260B	16		ug/kg	15
005	REC-10 B-16 (10-11)	Solid	Arsenic	6010C	1.6		mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Barium	6010C	35		mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Chromium	6010C	5.4	B	mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Lead	6010C	21		mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Mercury	7471B	0.011	J	mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Nickel	6010C	2.2		mg/kg	18
005	REC-10 B-16 (10-11)	Solid	Silver	6010C	0.21	J	mg/kg	18
006	REC-4 B-8 (2-4)	Solid	Styrene	8260B	1.3	J	ug/kg	19
007	REC-11b B-19 (0-2)	Solid	Acetone	8260B	8.3	J	ug/kg	22
008	REC-5c B-11 (12-13)	Solid	Acetone	8260B	31		ug/kg	25
008	REC-5c B-11 (12-13)	Solid	2-Butanone (MEK)	8260B	8.3	J	ug/kg	25
008	REC-5c B-11 (12-13)	Solid	2-Hexanone	8260B	2.5	J	ug/kg	25
008	REC-5c B-11 (12-13)	Solid	Isopropylbenzene	8260B	1.1	J	ug/kg	25
009	REC-5a B-9 (10-11)	Solid	Styrene	8260B	1.1	J	ug/kg	27
011	REC-8a B-12 (2-4)	Solid	Acetone	8260B	42		ug/kg	31
011	REC-8a B-12 (2-4)	Solid	2-Butanone (MEK)	8260B	4.6	J	ug/kg	31
011	REC-8a B-12 (2-4)	Solid	cis-1,2-Dichloroethene	8260B	1.4	J	ug/kg	31
011	REC-8a B-12 (2-4)	Solid	Ethylbenzene	8260B	34000		ug/kg	31
011	REC-8a B-12 (2-4)	Solid	Isopropylbenzene	8260B	0.71	J	ug/kg	31
011	REC-8a B-12 (2-4)	Solid	Xylenes (total)	8260B	170000		ug/kg	32
012	REC-8b B-13 (1-3)	Solid	Acetone	8260B	32		ug/kg	33

Executive Summary (Continued)

Lot Number: PA31056

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
012	REC-8b B-13 (1-3)	Solid	1,1-Dichloroethane	8260B	5.6		ug/kg	33
012	REC-8b B-13 (1-3)	Solid	cis-1,2-Dichloroethene	8260B	14		ug/kg	33
012	REC-8b B-13 (1-3)	Solid	Trichloroethene	8260B	5.8		ug/kg	34
012	REC-8b B-13 (1-3)	Solid	Arsenic	6010C	1.3		mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Barium	6010C	39		mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Chromium	6010C	7.3	B	mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Lead	6010C	16		mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Mercury	7471B	0.044	J	mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Nickel	6010C	3.1		mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Selenium	6010C	1.2	B	mg/kg	36
012	REC-8b B-13 (1-3)	Solid	Silver	6010C	0.24	J	mg/kg	36

(56 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-001
Description: TMW-3	Matrix: Aqueous
Date Sampled: 01/30/2014 1348	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1421	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	15	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.42	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	0.73	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	19		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	1.3	J	5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.34	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-001
Description: TMW-3	Matrix: Aqueous
Date Sampled: 01/30/2014 1348	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1421	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	7.9		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	0.27	J	2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		74	70-130
Bromofluorobenzene		80	70-130
Toluene-d8		74	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PA31056-002**

Description: **TMW-4**

Matrix: **Aqueous**

Date Sampled: **01/30/2014 1430**

Date Received: **01/31/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	02/07/2014 1444	ALL		40016		

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	7.1		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.11	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-002
Description: TMW-4	Matrix: Aqueous
Date Sampled: 01/30/2014 1430	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1444	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	2.1	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		73	70-130
Bromofluorobenzene		79	70-130
Toluene-d8		79	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-003
Description: TMW-2	Matrix: Aqueous
Date Sampled: 01/30/2014 1625	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1507	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.29	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-003
Description: TMW-2	Matrix: Aqueous
Date Sampled: 01/30/2014 1625	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1507	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	0.68	J	2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		76	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		80	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-004
Description: TMW-1	Matrix: Aqueous
Date Sampled: 01/30/2014 1740	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1530	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	10	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.42	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	1.6	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-004
Description: TMW-1	Matrix: Aqueous
Date Sampled: 01/30/2014 1740	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1530	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		73	70-130
Bromofluorobenzene		77	70-130
Toluene-d8		76	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-005
Description: REC-10 B-16 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1000	% Solids: 82.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1322	AAC		39667	6.49
2	5035	8260B	50	02/04/2014 1924	AAC		39721	6.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	23		19	6.3	ug/kg	1
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.7	0.65	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.3	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.7	0.78	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.93	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.7	0.63	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.79	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.7	0.68	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.93	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	380		230	35	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	9.2		4.7	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.85	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.64	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.77	ug/kg	1
Ethylbenzene	100-41-4	8260B	1.6	J	4.7	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.3	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.7	0.92	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.37	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.3	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.38	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.7	2.4	ug/kg	1
Styrene	100-42-5	8260B	5.9		4.7	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.44	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.7	0.47	ug/kg	1
Toluene	108-88-3	8260B	ND		4.7	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.59	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.79	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-005
Description: REC-10 B-16 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1000	% Solids: 82.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1322	AAC		39667	6.49
2	5035	8260B	50	02/04/2014 1924	AAC		39721	6.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.74	ug/kg	1
Trichloroethene	79-01-6	8260B	7.3		4.7	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	1.6	J	4.7	0.80	ug/kg	1
Xylenes (total)	1330-20-7	8260B	16		4.7	2.7	ug/kg	1

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	53-142		84	53-142
Bromofluorobenzene		89	47-138		72	47-138
Toluene-d8		97	68-124		83	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-005
Description: REC-10 B-16 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1000	% Solids: 82.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1630	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		40	13	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		40	12	ug/kg	1
Anthracene	120-12-7	8270D	ND		40	8.9	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		40	11	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		40	11	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		40	12	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		40	14	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		40	11	ug/kg	1
Chrysene	218-01-9	8270D	ND		40	13	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		40	11	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		40	13	ug/kg	1
Fluorene	86-73-7	8270D	ND		40	11	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		40	12	ug/kg	1
Naphthalene	91-20-3	8270D	ND		40	12	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		40	11	ug/kg	1
Pyrene	129-00-0	8270D	ND		40	16	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		59	33-102
Nitrobenzene-d5		54	22-109
Terphenyl-d14		75	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

PCBs by GC

Client: AECOM	Laboratory ID: PA31056-005
Description: REC-10 B-16 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1000	% Solids: 82.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8082A	1	02/10/2014 1328	MPM	02/03/2014 1150	39617

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Aroclor 1016	12674-11-2	8082A	ND		20	1.3	ug/kg	1
Aroclor 1221	11104-28-2	8082A	ND		20	12	ug/kg	1
Aroclor 1232	11141-16-5	8082A	ND		20	3.9	ug/kg	1
Aroclor 1242	53469-21-9	8082A	ND		20	2.7	ug/kg	1
Aroclor 1248	12672-29-6	8082A	ND		20	4.5	ug/kg	1
Aroclor 1254	11097-69-1	8082A	ND		20	2.1	ug/kg	1
Aroclor 1260	11096-82-5	8082A	ND		20	6.8	ug/kg	1

Surrogate	Run 1 Acceptance	
	Q	% Recovery Limits
Decachlorobiphenyl		80 41-132
Tetrachloro-m-xylene		77 35-106

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Metals

Client: AECOM	Laboratory ID: PA31056-005
Description: REC-10 B-16 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1000	% Solids: 82.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	7471B	7471B	1	02/04/2014 1646	COH	02/04/2014 1456	39693
1	3050B	6010C	1	02/05/2014 0259	CDF	02/03/2014 1507	39633

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Arsenic	7440-38-2	6010C	1.6		0.56	0.21	mg/kg	1
Barium	7440-39-3	6010C	35		1.4	0.10	mg/kg	1
Cadmium	7440-43-9	6010C	ND		0.11	0.012	mg/kg	1
Chromium	7440-47-3	6010C	5.4	B	0.28	0.056	mg/kg	1
Lead	7439-92-1	6010C	21		0.56	0.10	mg/kg	1
Mercury	7439-97-6	7471B	0.011	J	0.093	0.0066	mg/kg	1
Nickel	7440-02-0	6010C	2.2		2.2	0.17	mg/kg	1
Selenium	7782-49-2	6010C	ND		0.56	0.19	mg/kg	1
Silver	7440-22-4	6010C	0.21	J	0.28	0.047	mg/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-006
Description: REC-4 B-8 (2-4)	Matrix: Solid
Date Sampled: 01/31/2014 0930	% Solids: 81.8 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1837	AAC		39667	5.46

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.5	ug/kg	1
Benzene	71-43-2	8260B	ND		5.6	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.6	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.6	0.78	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.6	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.6	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.6	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.6	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.6	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.6	0.93	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.6	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.6	0.75	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.6	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.6	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.6	0.95	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.6	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.6	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.6	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.6	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.6	0.82	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.6	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.6	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.6	0.85	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.6	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.6	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.6	0.76	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.6	0.92	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.6	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.6	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.6	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.6	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.6	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.6	2.9	ug/kg	1
Styrene	100-42-5	8260B	1.3	J	5.6	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.6	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.6	0.56	ug/kg	1
Toluene	108-88-3	8260B	ND		5.6	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.6	0.71	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.6	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.6	0.95	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.6	0.88	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-006
Description: REC-4 B-8 (2-4)	Matrix: Solid
Date Sampled: 01/31/2014 0930	% Solids: 81.8 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1837	AAC		39667	5.46

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.6	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.6	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.6	0.96	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.6	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-006
Description: REC-4 B-8 (2-4)	Matrix: Solid
Date Sampled: 01/31/2014 0930	% Solids: 81.8 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1739	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		40	13	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		40	13	ug/kg	1
Anthracene	120-12-7	8270D	ND		40	9.0	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		40	11	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		40	11	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		40	12	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		40	14	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		40	12	ug/kg	1
Chrysene	218-01-9	8270D	ND		40	13	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		40	11	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		40	13	ug/kg	1
Fluorene	86-73-7	8270D	ND		40	11	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		40	12	ug/kg	1
Naphthalene	91-20-3	8270D	ND		40	12	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		40	11	ug/kg	1
Pyrene	129-00-0	8270D	ND		40	16	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		67	33-102
Nitrobenzene-d5		63	22-109
Terphenyl-d14		79	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-007
Description: REC-11b B-19 (0-2)	Matrix: Solid
Date Sampled: 01/31/2014 1100	% Solids: 90.2 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1550	AAC		39667	5.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	8.3	J	19	6.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.8	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.8	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.8	0.67	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.8	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.6	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.8	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.8	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.8	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.8	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.8	0.80	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.8	0.96	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.8	0.65	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.8	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.8	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.8	0.82	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.8	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.8	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.8	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.8	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.8	0.70	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.8	0.96	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.8	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.8	0.73	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.8	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.8	0.88	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.8	0.66	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.8	0.79	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.8	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.6	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.8	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.8	0.94	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.8	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.6	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.8	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.8	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.8	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.8	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.8	0.48	ug/kg	1
Toluene	108-88-3	8260B	ND		4.8	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.8	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.8	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.8	0.82	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.8	0.76	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-007
Description: REC-11b B-19 (0-2)	Matrix: Solid
Date Sampled: 01/31/2014 1100	% Solids: 90.2 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1550	AAC		39667	5.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.8	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.8	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.8	0.83	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.8	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-007
Description: REC-11b B-19 (0-2)	Matrix: Solid
Date Sampled: 01/31/2014 1100	% Solids: 90.2 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D	1	02/06/2014 1802	DRB1	02/05/2014 2210	39883

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		36	12	ug/kg	1
Acenaphthylene	208-96-8	8270D	ND		36	11	ug/kg	1
Anthracene	120-12-7	8270D	ND		36	8.0	ug/kg	1
Benzo(a)anthracene	56-55-3	8270D	ND		36	9.6	ug/kg	1
Benzo(a)pyrene	50-32-8	8270D	ND		36	10	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		36	10	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		36	13	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		36	10	ug/kg	1
Chrysene	218-01-9	8270D	ND		36	12	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		36	9.9	ug/kg	1
Fluoranthene	206-44-0	8270D	ND		36	11	ug/kg	1
Fluorene	86-73-7	8270D	ND		36	9.8	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		36	11	ug/kg	1
Naphthalene	91-20-3	8270D	ND		36	11	ug/kg	1
Phenanthrene	85-01-8	8270D	ND		36	9.8	ug/kg	1
Pyrene	129-00-0	8270D	ND		36	14	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		86	33-102
Nitrobenzene-d5		78	22-109
Terphenyl-d14		100	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-008
Description: REC-5c B-11 (12-13)	Matrix: Solid
Date Sampled: 01/31/2014 1320	% Solids: 82.6 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1614	AAC		39667	5.63

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	31		22	7.2	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.75	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	8.3	J	11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.89	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.72	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.91	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.78	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.98	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.73	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.88	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	2.5	J	11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	1.1	J	5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.91	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.85	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-008
Description: REC-5c B-11 (12-13)	Matrix: Solid
Date Sampled: 01/31/2014 1320	% Solids: 82.6 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1614	AAC		39667	5.63

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.4	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.92	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-009
Description: REC-5a B-9 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1600	% Solids: 81.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1638	AAC		39667	6.00

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.9	ug/kg	1
Benzene	71-43-2	8260B	ND		5.1	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.1	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.1	0.72	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.1	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.1	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.1	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.1	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.1	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.1	0.85	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.1	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.1	0.69	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.1	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.1	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.1	0.87	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.1	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.1	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.1	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.1	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.1	0.75	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.1	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.1	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.1	0.78	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.1	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.1	0.93	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.1	0.70	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.1	0.84	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.1	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.1	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.1	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.1	0.41	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.1	0.42	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.1	2.7	ug/kg	1
Styrene	100-42-5	8260B	1.1	J	5.1	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.1	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.1	0.51	ug/kg	1
Toluene	108-88-3	8260B	ND		5.1	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.1	0.64	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.1	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.1	0.87	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.1	0.81	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-009
Description: REC-5a B-9 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1600	% Solids: 81.5 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1638	AAC		39667	6.00

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.1	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.1	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.1	0.88	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.1	3.0	ug/kg	1

Surrogate	Run 1 Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		91	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PA31056-010**

Description: **TB-01-013114**

Matrix: **Aqueous**

Date Sampled: **01/31/2014**

Date Received: **01/31/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1553	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-010
Description: TB-01-013114	Matrix: Aqueous
Date Sampled: 01/31/2014	
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 1553	ALL		40016

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		73	70-130
Bromofluorobenzene		78	70-130
Toluene-d8		75	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-011
Description: REC-8a B-12 (2-4)	Matrix: Solid
Date Sampled: 01/31/2014 1520	% Solids: 92.3 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1701	AAC		39667	5.57
3	5035	8260B	2000	02/06/2014 1332	AAC		39933	6.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	42		19	6.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.68	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	4.6	J	9.7	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.9	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.81	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.97	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.9	0.66	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.71	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.97	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.4	J	4.9	0.74	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.88	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.66	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.80	ug/kg	1
Ethylbenzene	100-41-4	8260B	34000		8000	2700	ug/kg	3
2-Hexanone	591-78-6	8260B	ND		9.7	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	0.71	J	4.9	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.95	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.7	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-011
Description: REC-8a B-12 (2-4)	Matrix: Solid
Date Sampled: 01/31/2014 1520	% Solids: 92.3 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1701	AAC		39667	5.57
3	5035	8260B	2000	02/06/2014 1332	AAC		39933	6.75

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.77	ug/kg	1
Trichloroethene	79-01-6	8260B	ND		4.9	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.84	ug/kg	1
Xylenes (total)	1330-20-7	8260B	170000		8000	4700	ug/kg	3

Surrogate	Run 1 Acceptance			Run 3 Acceptance		
	Q	% Recovery	Limits	Q	% Recovery	Limits
1,2-Dichloroethane-d4		95	53-142		95	53-142
Bromofluorobenzene		87	47-138		110	47-138
Toluene-d8		95	68-124		107	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-012
Description: REC-8b B-13 (1-3)	Matrix: Solid
Date Sampled: 01/31/2014 1350	% Solids: 83.9 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1726	AAC		39667	6.38

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	32		19	6.3	ug/kg	1
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.7	0.65	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.3	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.7	0.78	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.93	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.7	0.63	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.79	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	5.6		4.7	0.68	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.93	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	14		4.7	0.71	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.7	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.85	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.63	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.77	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.7	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.3	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.7	0.92	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.37	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.3	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.38	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.7	2.4	ug/kg	1
Styrene	100-42-5	8260B	ND		4.7	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.44	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.7	0.47	ug/kg	1
Toluene	108-88-3	8260B	ND		4.7	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.59	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.79	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.74	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-012
Description: REC-8b B-13 (1-3)	Matrix: Solid
Date Sampled: 01/31/2014 1350	% Solids: 83.9 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1726	AAC		39667	6.38

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	5.8		4.7	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.7	0.80	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.7	2.7	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Semivolatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-012
Description: REC-8b B-13 (1-3)	Matrix: Solid
Date Sampled: 01/31/2014 1350	% Solids: 83.9 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8270D	1	02/10/2014 1525	RBH	02/10/2014 0940	40082

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		39	13	ug/kg	2
Acenaphthylene	208-96-8	8270D	ND		39	12	ug/kg	2
Anthracene	120-12-7	8270D	ND		39	8.7	ug/kg	2
Benzo(a)anthracene	56-55-3	8270D	ND		39	10	ug/kg	2
Benzo(a)pyrene	50-32-8	8270D	ND		39	11	ug/kg	2
Benzo(b)fluoranthene	205-99-2	8270D	ND		39	11	ug/kg	2
Benzo(g,h,i)perylene	191-24-2	8270D	ND		39	14	ug/kg	2
Benzo(k)fluoranthene	207-08-9	8270D	ND		39	11	ug/kg	2
Chrysene	218-01-9	8270D	ND		39	13	ug/kg	2
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		39	11	ug/kg	2
Fluoranthene	206-44-0	8270D	ND		39	12	ug/kg	2
Fluorene	86-73-7	8270D	ND		39	11	ug/kg	2
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		39	11	ug/kg	2
Naphthalene	91-20-3	8270D	ND		39	12	ug/kg	2
Phenanthrene	85-01-8	8270D	ND		39	11	ug/kg	2
Pyrene	129-00-0	8270D	ND		39	16	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	33-102
Nitrobenzene-d5		58	22-109
Terphenyl-d14		78	41-120

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Metals

Client: AECOM	Laboratory ID: PA31056-012
Description: REC-8b B-13 (1-3)	Matrix: Solid
Date Sampled: 01/31/2014 1350	% Solids: 83.9 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010C	1	02/05/2014 0302	CDF	02/03/2014 1507	39633
1	7471B	7471B	1	02/04/2014 1649	COH	02/04/2014 1456	39693
2	3050B	6010C	2	02/07/2014 1718	BNW	02/03/2014 1507	39633

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Arsenic	7440-38-2	6010C	1.3		1.1	0.41	mg/kg	2
Barium	7440-39-3	6010C	39		1.4	0.099	mg/kg	1
Cadmium	7440-43-9	6010C	ND		0.11	0.011	mg/kg	1
Chromium	7440-47-3	6010C	7.3	B	0.27	0.055	mg/kg	1
Lead	7439-92-1	6010C	16		1.1	0.20	mg/kg	2
Mercury	7439-97-6	7471B	0.044	J	0.089	0.0063	mg/kg	1
Nickel	7440-02-0	6010C	3.1		2.2	0.16	mg/kg	1
Selenium	7782-49-2	6010C	1.2	B	1.1	0.38	mg/kg	2
Silver	7440-22-4	6010C	0.24	J	0.54	0.091	mg/kg	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-013
Description: REC-5B B-10 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1700	% Solids: 83.2 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1750	AAC		39667	6.55

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	6.1	ug/kg	1
Benzene	71-43-2	8260B	ND		4.6	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.6	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.6	0.64	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.6	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.2	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.6	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.6	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.6	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.6	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.6	0.76	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.6	0.92	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.6	0.62	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.6	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.6	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.6	0.78	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.6	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.6	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.6	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.6	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.6	0.67	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.6	0.92	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.6	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.6	0.70	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.6	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.6	0.83	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.6	0.62	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.6	0.75	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.6	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.2	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.6	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.6	0.90	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.6	0.37	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.2	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.6	0.38	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.6	2.4	ug/kg	1
Styrene	100-42-5	8260B	ND		4.6	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.6	0.43	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.6	0.46	ug/kg	1
Toluene	108-88-3	8260B	ND		4.6	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.6	0.58	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.6	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.6	0.78	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.6	0.72	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-013
Description: REC-5B B-10 (10-11)	Matrix: Solid
Date Sampled: 01/31/2014 1700	% Solids: 83.2 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1750	AAC		39667	6.55

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.6	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.6	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.6	0.79	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.6	2.7	ug/kg	1

Surrogate	Run 1 Q	Acceptance % Recovery	Limits
1,2-Dichloroethane-d4	97		53-142
Bromofluorobenzene	89		47-138
Toluene-d8	96		68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-014
Description: REC-2 B-3a (5-6)	Matrix: Solid
Date Sampled: 01/31/2014 1700	% Solids: 83.3 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1814	AAC		39667	7.06

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		17	5.7	ug/kg	1
Benzene	71-43-2	8260B	ND		4.3	0.94	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.3	1.4	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.3	0.60	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.3	1.5	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.5	2.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.3	1.1	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.3	1.5	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.3	1.4	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.3	1.1	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.3	0.71	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.3	0.85	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.3	0.57	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.3	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.3	1.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.3	0.72	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.3	1.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.3	1.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.3	1.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.3	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.3	0.62	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.3	0.85	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.3	1.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.3	0.65	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.3	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.3	0.77	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.3	0.58	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.3	0.70	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.3	1.4	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.5	1.1	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.3	0.20	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.3	0.83	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.3	0.34	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.5	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.3	0.35	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.3	2.2	ug/kg	1
Styrene	100-42-5	8260B	ND		4.3	0.94	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.3	0.40	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.3	0.43	ug/kg	1
Toluene	108-88-3	8260B	ND		4.3	1.4	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.3	0.54	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.3	1.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.3	0.72	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.3	0.67	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PA31056-014
Description: REC-2 B-3a (5-6)	Matrix: Solid
Date Sampled: 01/31/2014 1700	% Solids: 83.3 01/31/2014 2136
Date Received: 01/31/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	02/03/2014 1814	AAC		39667	7.06

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.3	1.6	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.3	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.3	0.73	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.3	2.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		99	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39667-001

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	02/03/2014 1147
Benzene	ND		1	5.0	1.1	ug/kg	02/03/2014 1147
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
Bromoform	ND		1	5.0	0.70	ug/kg	02/03/2014 1147
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	02/03/2014 1147
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	02/03/2014 1147
Carbon disulfide	ND		1	5.0	1.3	ug/kg	02/03/2014 1147
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	02/03/2014 1147
Chlorobenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
Chloroethane	ND		1	5.0	1.3	ug/kg	02/03/2014 1147
Chloroform	ND		1	5.0	0.83	ug/kg	02/03/2014 1147
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	02/03/2014 1147
Cyclohexane	ND		1	5.0	0.67	ug/kg	02/03/2014 1147
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	02/03/2014 1147
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	02/03/2014 1147
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	02/03/2014 1147
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	02/03/2014 1147
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	02/03/2014 1147
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	02/03/2014 1147
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	02/03/2014 1147
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	02/03/2014 1147
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	02/03/2014 1147
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	02/03/2014 1147
Ethylbenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
2-Hexanone	ND		1	10	1.3	ug/kg	02/03/2014 1147
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	02/03/2014 1147
Methyl acetate	ND		1	5.0	0.98	ug/kg	02/03/2014 1147
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	02/03/2014 1147
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	02/03/2014 1147
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	02/03/2014 1147
Methylene chloride	ND		1	5.0	2.6	ug/kg	02/03/2014 1147
Styrene	ND		1	5.0	1.1	ug/kg	02/03/2014 1147
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	02/03/2014 1147
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	02/03/2014 1147
Toluene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	02/03/2014 1147
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	02/03/2014 1147
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	02/03/2014 1147
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	02/03/2014 1147

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39667-001

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	02/03/2014 1147
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	02/03/2014 1147
Vinyl chloride	ND		1	5.0	0.86	ug/kg	02/03/2014 1147
Xylenes (total)	ND		1	5.0	2.9	ug/kg	02/03/2014 1147
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		88	47-138				
1,2-Dichloroethane-d4		99	53-142				
Toluene-d8		95	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39667-002

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	123	60-140	02/03/2014 1011
Benzene	50	46		1	93	69-123	02/03/2014 1011
Bromodichloromethane	50	46		1	92	69-121	02/03/2014 1011
Bromoform	50	47		1	94	61-119	02/03/2014 1011
Bromomethane (Methyl bromide)	50	53		1	106	10-168	02/03/2014 1011
2-Butanone (MEK)	100	100		1	101	57-148	02/03/2014 1011
Carbon disulfide	50	56		1	111	58-122	02/03/2014 1011
Carbon tetrachloride	50	50		1	100	58-136	02/03/2014 1011
Chlorobenzene	50	45		1	89	59-129	02/03/2014 1011
Chloroethane	50	54		1	107	42-163	02/03/2014 1011
Chloroform	50	48		1	95	71-125	02/03/2014 1011
Chloromethane (Methyl chloride)	50	51		1	102	34-134	02/03/2014 1011
Cyclohexane	50	53		1	106	53-139	02/03/2014 1011
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	55-125	02/03/2014 1011
Dibromochloromethane	50	45		1	90	66-119	02/03/2014 1011
1,2-Dibromoethane (EDB)	50	45		1	90	74-124	02/03/2014 1011
1,3-Dichlorobenzene	50	44		1	88	51-134	02/03/2014 1011
1,4-Dichlorobenzene	50	43		1	86	52-133	02/03/2014 1011
1,2-Dichlorobenzene	50	44		1	88	57-131	02/03/2014 1011
Dichlorodifluoromethane	50	55		1	110	10-157	02/03/2014 1011
1,1-Dichloroethane	50	49		1	97	71-127	02/03/2014 1011
1,2-Dichloroethane	50	46		1	92	67-129	02/03/2014 1011
cis-1,2-Dichloroethene	50	48		1	96	70-122	02/03/2014 1011
1,1-Dichloroethene	50	52		1	103	69-138	02/03/2014 1011
trans-1,2-Dichloroethene	50	49		1	98	68-131	02/03/2014 1011
1,2-Dichloropropane	50	45		1	91	72-124	02/03/2014 1011
trans-1,3-Dichloropropene	50	45		1	90	70-124	02/03/2014 1011
cis-1,3-Dichloropropene	50	46		1	93	70-126	02/03/2014 1011
Ethylbenzene	50	45		1	90	59-128	02/03/2014 1011
2-Hexanone	100	98		1	98	54-137	02/03/2014 1011
Isopropylbenzene	50	43		1	87	50-136	02/03/2014 1011
Methyl acetate	50	50		1	101	59-137	02/03/2014 1011
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	02/03/2014 1011
4-Methyl-2-pentanone	100	99		1	99	60-134	02/03/2014 1011
Methylcyclohexane	50	50		1	100	41-144	02/03/2014 1011
Methylene chloride	50	48		1	95	70-130	02/03/2014 1011
Styrene	50	46		1	92	54-136	02/03/2014 1011
1,1,2,2-Tetrachloroethane	50	45		1	90	69-132	02/03/2014 1011
Tetrachloroethene	50	42		1	85	45-150	02/03/2014 1011
Toluene	50	46		1	92	61-129	02/03/2014 1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	113	49-136	02/03/2014 1011
1,2,4-Trichlorobenzene	50	45		1	89	34-145	02/03/2014 1011
1,1,1-Trichloroethane	50	51		1	101	63-128	02/03/2014 1011
1,1,2-Trichloroethane	50	43		1	85	55-128	02/03/2014 1011

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39667-002

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	62-126	02/03/2014 1011
Trichlorofluoromethane	50	51		1	103	45-138	02/03/2014 1011
Vinyl chloride	50	56		1	113	42-132	02/03/2014 1011
Xylenes (total)	100	91		1	91	58-128	02/03/2014 1011
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		96	47-138				
1,2-Dichloroethane-d4		101	53-142				
Toluene-d8		102	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39667-003

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	121	1.3	60-140	20	02/03/2014 1035
Benzene	50	43		1	85	8.1	69-123	20	02/03/2014 1035
Bromodichloromethane	50	43		1	86	6.4	69-121	20	02/03/2014 1035
Bromoform	50	44		1	88	5.9	61-119	20	02/03/2014 1035
Bromomethane (Methyl bromide)	50	47		1	94	12	10-168	20	02/03/2014 1035
2-Butanone (MEK)	100	100		1	100	1.0	57-148	20	02/03/2014 1035
Carbon disulfide	50	49		1	98	13	58-122	20	02/03/2014 1035
Carbon tetrachloride	50	45		1	90	10	58-136	20	02/03/2014 1035
Chlorobenzene	50	41		1	82	8.7	59-129	20	02/03/2014 1035
Chloroethane	50	47		1	94	13	42-163	20	02/03/2014 1035
Chloroform	50	43		1	85	11	71-125	20	02/03/2014 1035
Chloromethane (Methyl chloride)	50	47		1	93	9.5	34-134	20	02/03/2014 1035
Cyclohexane	50	46		1	93	14	53-139	20	02/03/2014 1035
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	92	2.8	55-125	20	02/03/2014 1035
Dibromochloromethane	50	42		1	83	7.7	66-119	20	02/03/2014 1035
1,2-Dibromoethane (EDB)	50	42		1	84	7.5	74-124	20	02/03/2014 1035
1,3-Dichlorobenzene	50	40		1	80	8.7	51-134	20	02/03/2014 1035
1,4-Dichlorobenzene	50	39		1	79	8.9	52-133	20	02/03/2014 1035
1,2-Dichlorobenzene	50	41		1	82	6.4	57-131	20	02/03/2014 1035
Dichlorodifluoromethane	50	49		1	99	11	10-157	20	02/03/2014 1035
1,1-Dichloroethane	50	44		1	89	9.5	71-127	20	02/03/2014 1035
1,2-Dichloroethane	50	42		1	85	8.0	67-129	20	02/03/2014 1035
cis-1,2-Dichloroethene	50	44		1	89	8.6	70-122	20	02/03/2014 1035
1,1-Dichloroethene	50	46		1	91	12	69-138	20	02/03/2014 1035
trans-1,2-Dichloroethene	50	44		1	88	10	68-131	20	02/03/2014 1035
1,2-Dichloropropane	50	43		1	86	5.8	72-124	20	02/03/2014 1035
trans-1,3-Dichloropropene	50	42		1	83	7.3	70-124	20	02/03/2014 1035
cis-1,3-Dichloropropene	50	44		1	89	4.3	70-126	20	02/03/2014 1035
Ethylbenzene	50	41		1	82	9.8	59-128	20	02/03/2014 1035
2-Hexanone	100	98		1	98	0.39	54-137	20	02/03/2014 1035
Isopropylbenzene	50	40		1	81	7.3	50-136	20	02/03/2014 1035
Methyl acetate	50	49		1	97	3.4	59-137	20	02/03/2014 1035
Methyl tertiary butyl ether (MTBE)	50	46		1	92	6.0	70-130	20	02/03/2014 1035
4-Methyl-2-pentanone	100	100		1	101	1.3	60-134	20	02/03/2014 1035
Methylcyclohexane	50	45		1	91	10	41-144	20	02/03/2014 1035
Methylene chloride	50	44		1	87	9.1	70-130	20	02/03/2014 1035
Styrene	50	42		1	84	9.1	54-136	20	02/03/2014 1035
1,1,2,2-Tetrachloroethane	50	44		1	88	2.6	69-132	20	02/03/2014 1035
Tetrachloroethene	50	37		1	75	12	45-150	20	02/03/2014 1035
Toluene	50	43		1	87	6.0	61-129	20	02/03/2014 1035
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	12	49-136	20	02/03/2014 1035
1,2,4-Trichlorobenzene	50	42		1	84	6.4	34-145	20	02/03/2014 1035
1,1,1-Trichloroethane	50	45		1	91	11	63-128	20	02/03/2014 1035
1,1,2-Trichloroethane	50	39		1	79	7.7	55-128	20	02/03/2014 1035

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39667-003

Matrix: Solid

Batch: 39667

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	42		1	83	9.5	62-126	20	02/03/2014 1035
Trichlorofluoromethane	50	46		1	92	11	45-138	20	02/03/2014 1035
Vinyl chloride	50	50		1	99	13	42-132	20	02/03/2014 1035
Xylenes (total)	100	82		1	82	10	58-128	20	02/03/2014 1035
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		88	47-138						
1,2-Dichloroethane-d4		94	53-142						
Toluene-d8		99	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39721-001

Matrix: Solid

Batch: 39721

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		50	250	38	ug/kg	02/04/2014 1701
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		89	47-138				
1,2-Dichloroethane-d4		111	53-142				
Toluene-d8		110	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39721-002

Matrix: Solid

Batch: 39721

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	2500	2800		50	111	70-122	02/04/2014 1725
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		77	47-138				
1,2-Dichloroethane-d4		102	53-142				
Toluene-d8		88	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39721-003

Matrix: Solid

Batch: 39721

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	2500	2900		50	114	2.5	70-122	20	02/04/2014 1749
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		89	47-138						
1,2-Dichloroethane-d4		107	53-142						
Toluene-d8		102	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39933-001

Matrix: Solid

Batch: 39933

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Ethylbenzene	ND		50	250	85	ug/kg	02/04/2014 1701
Xylenes (total)	ND		50	250	150	ug/kg	02/04/2014 1701
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		89	47-138				
1,2-Dichloroethane-d4		111	53-142				
Toluene-d8		110	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39933-002

Matrix: Solid

Batch: 39933

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Ethylbenzene	2500	2200		50	90	59-128	02/04/2014 1725
Xylenes (total)	5000	4600		50	92	58-128	02/04/2014 1725
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		77	47-138				
1,2-Dichloroethane-d4		102	53-142				
Toluene-d8		88	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39933-003

Matrix: Solid

Batch: 39933

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Ethylbenzene	2500	2500		50	101	12	59-128	20	02/04/2014 1749
Xylenes (total)	5000	5100		50	102	10	58-128	20	02/04/2014 1749
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		89	47-138						
1,2-Dichloroethane-d4		107	53-142						
Toluene-d8		102	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ40016-001

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	02/07/2014 1204
Benzene	ND		1	5.0	0.20	ug/L	02/07/2014 1204
Bromodichloromethane	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Bromoform	ND		1	5.0	0.40	ug/L	02/07/2014 1204
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	02/07/2014 1204
2-Butanone (MEK)	ND		1	10	1.8	ug/L	02/07/2014 1204
Carbon disulfide	ND		1	5.0	0.30	ug/L	02/07/2014 1204
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	02/07/2014 1204
Chlorobenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Chloroethane	ND		1	5.0	0.50	ug/L	02/07/2014 1204
Chloroform	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	02/07/2014 1204
Cyclohexane	ND		1	5.0	0.98	ug/L	02/07/2014 1204
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	02/07/2014 1204
Dibromochloromethane	ND		1	5.0	1.7	ug/L	02/07/2014 1204
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	02/07/2014 1204
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	02/07/2014 1204
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	02/07/2014 1204
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	02/07/2014 1204
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	02/07/2014 1204
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	02/07/2014 1204
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	02/07/2014 1204
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	02/07/2014 1204
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/07/2014 1204
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/07/2014 1204
Ethylbenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
2-Hexanone	ND		1	10	1.0	ug/L	02/07/2014 1204
Isopropylbenzene	ND		1	5.0	1.0	ug/L	02/07/2014 1204
Methyl acetate	ND		1	5.0	0.72	ug/L	02/07/2014 1204
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	02/07/2014 1204
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	02/07/2014 1204
Methylcyclohexane	ND		1	5.0	0.95	ug/L	02/07/2014 1204
Methylene chloride	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Styrene	ND		1	5.0	0.10	ug/L	02/07/2014 1204
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	02/07/2014 1204
Tetrachloroethene	ND		1	5.0	0.40	ug/L	02/07/2014 1204
Toluene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	02/07/2014 1204
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	02/07/2014 1204
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	02/07/2014 1204
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	02/07/2014 1204

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ40016-001

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	02/07/2014 1204
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	02/07/2014 1204
Vinyl chloride	ND		1	2.0	0.10	ug/L	02/07/2014 1204
Xylenes (total)	ND		1	5.0	1.7	ug/L	02/07/2014 1204
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		77	70-130				
1,2-Dichloroethane-d4		73	70-130				
Toluene-d8		75	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ40016-002

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	80		1	80	60-140	02/07/2014 1032
Benzene	50	49		1	98	70-130	02/07/2014 1032
Bromodichloromethane	50	50		1	101	70-130	02/07/2014 1032
Bromoform	50	49		1	98	70-130	02/07/2014 1032
Bromomethane (Methyl bromide)	50	47		1	95	60-140	02/07/2014 1032
2-Butanone (MEK)	100	92		1	92	60-140	02/07/2014 1032
Carbon disulfide	50	49		1	99	60-140	02/07/2014 1032
Carbon tetrachloride	50	49		1	98	70-130	02/07/2014 1032
Chlorobenzene	50	48		1	96	70-130	02/07/2014 1032
Chloroethane	50	48		1	95	42-163	02/07/2014 1032
Chloroform	50	47		1	93	70-130	02/07/2014 1032
Chloromethane (Methyl chloride)	50	44		1	88	60-140	02/07/2014 1032
Cyclohexane	50	40		1	81	70-130	02/07/2014 1032
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	02/07/2014 1032
Dibromochloromethane	50	49		1	98	70-130	02/07/2014 1032
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	02/07/2014 1032
1,2-Dichlorobenzene	50	46		1	92	70-130	02/07/2014 1032
1,4-Dichlorobenzene	50	46		1	91	70-130	02/07/2014 1032
1,3-Dichlorobenzene	50	46		1	92	70-130	02/07/2014 1032
Dichlorodifluoromethane	50	47		1	93	60-140	02/07/2014 1032
1,2-Dichloroethane	50	45		1	91	70-130	02/07/2014 1032
1,1-Dichloroethane	50	48		1	96	70-130	02/07/2014 1032
cis-1,2-Dichloroethene	50	47		1	95	70-130	02/07/2014 1032
1,1-Dichloroethene	50	48		1	95	70-130	02/07/2014 1032
trans-1,2-Dichloroethene	50	48		1	96	70-130	02/07/2014 1032
1,2-Dichloropropane	50	49		1	97	70-130	02/07/2014 1032
cis-1,3-Dichloropropene	50	48		1	97	70-130	02/07/2014 1032
trans-1,3-Dichloropropene	50	54		1	107	70-130	02/07/2014 1032
Ethylbenzene	50	48		1	96	70-130	02/07/2014 1032
2-Hexanone	100	100		1	103	60-140	02/07/2014 1032
Isopropylbenzene	50	47		1	94	70-130	02/07/2014 1032
Methyl acetate	50	42		1	83	70-130	02/07/2014 1032
Methyl tertiary butyl ether (MTBE)	50	47		1	93	70-130	02/07/2014 1032
4-Methyl-2-pentanone	100	98		1	98	60-140	02/07/2014 1032
Methylcyclohexane	50	46		1	91	70-130	02/07/2014 1032
Methylene chloride	50	43		1	87	70-130	02/07/2014 1032
Styrene	50	50		1	99	70-130	02/07/2014 1032
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	02/07/2014 1032
Tetrachloroethene	50	46		1	92	70-130	02/07/2014 1032
Toluene	50	48		1	97	70-130	02/07/2014 1032
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	02/07/2014 1032
1,2,4-Trichlorobenzene	50	47		1	95	70-130	02/07/2014 1032
1,1,1-Trichloroethane	50	46		1	92	70-130	02/07/2014 1032
1,1,2-Trichloroethane	50	50		1	100	70-130	02/07/2014 1032

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ40016-002

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	97	70-130	02/07/2014 1032
Trichlorofluoromethane	50	47		1	93	70-130	02/07/2014 1032
Vinyl chloride	50	48		1	97	70-130	02/07/2014 1032
Xylenes (total)	100	97		1	97	70-130	02/07/2014 1032
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		79	70-130				
Toluene-d8		93	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ40016-003

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	84		1	84	5.0	60-140	20	02/07/2014 1055
Benzene	50	52		1	104	6.0	70-130	20	02/07/2014 1055
Bromodichloromethane	50	52		1	104	3.3	70-130	20	02/07/2014 1055
Bromoform	50	49		1	98	0.17	70-130	20	02/07/2014 1055
Bromomethane (Methyl bromide)	50	53		1	106	11	60-140	20	02/07/2014 1055
2-Butanone (MEK)	100	96		1	96	4.8	60-140	20	02/07/2014 1055
Carbon disulfide	50	54		1	109	9.8	60-140	20	02/07/2014 1055
Carbon tetrachloride	50	55		1	109	11	70-130	20	02/07/2014 1055
Chlorobenzene	50	50		1	100	4.2	70-130	20	02/07/2014 1055
Chloroethane	50	53		1	106	11	42-163	20	02/07/2014 1055
Chloroform	50	49		1	99	5.9	70-130	20	02/07/2014 1055
Chloromethane (Methyl chloride)	50	50		1	99	12	60-140	20	02/07/2014 1055
Cyclohexane	50	46		1	93	14	70-130	20	02/07/2014 1055
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	105	6.1	70-130	20	02/07/2014 1055
Dibromochloromethane	50	50		1	99	1.1	70-130	20	02/07/2014 1055
1,2-Dibromoethane (EDB)	50	51		1	102	1.3	70-130	20	02/07/2014 1055
1,2-Dichlorobenzene	50	49		1	97	5.2	70-130	20	02/07/2014 1055
1,4-Dichlorobenzene	50	47		1	95	3.6	70-130	20	02/07/2014 1055
1,3-Dichlorobenzene	50	48		1	96	4.5	70-130	20	02/07/2014 1055
Dichlorodifluoromethane	50	54		1	108	15	60-140	20	02/07/2014 1055
1,2-Dichloroethane	50	49		1	97	6.7	70-130	20	02/07/2014 1055
1,1-Dichloroethane	50	52		1	104	8.0	70-130	20	02/07/2014 1055
cis-1,2-Dichloroethene	50	51		1	102	7.4	70-130	20	02/07/2014 1055
1,1-Dichloroethene	50	52		1	104	8.7	70-130	20	02/07/2014 1055
trans-1,2-Dichloroethene	50	52		1	103	7.2	70-130	20	02/07/2014 1055
1,2-Dichloropropane	50	51		1	102	4.6	70-130	20	02/07/2014 1055
cis-1,3-Dichloropropene	50	50		1	100	3.2	70-130	20	02/07/2014 1055
trans-1,3-Dichloropropene	50	54		1	109	1.3	70-130	20	02/07/2014 1055
Ethylbenzene	50	50		1	100	4.3	70-130	20	02/07/2014 1055
2-Hexanone	100	99		1	99	4.1	60-140	20	02/07/2014 1055
Isopropylbenzene	50	50		1	100	6.5	70-130	20	02/07/2014 1055
Methyl acetate	50	46		1	92	10	70-130	20	02/07/2014 1055
Methyl tertiary butyl ether (MTBE)	50	49		1	98	5.0	70-130	20	02/07/2014 1055
4-Methyl-2-pentanone	100	98		1	98	0.16	60-140	20	02/07/2014 1055
Methylcyclohexane	50	51		1	103	12	70-130	20	02/07/2014 1055
Methylene chloride	50	46		1	93	6.4	70-130	20	02/07/2014 1055
Styrene	50	51		1	101	2.2	70-130	20	02/07/2014 1055
1,1,2,2-Tetrachloroethane	50	50		1	101	2.5	70-130	20	02/07/2014 1055
Tetrachloroethene	50	49		1	98	7.1	70-130	20	02/07/2014 1055
Toluene	50	51		1	101	4.5	70-130	20	02/07/2014 1055
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	113	16	70-130	20	02/07/2014 1055
1,2,4-Trichlorobenzene	50	50		1	101	6.4	70-130	20	02/07/2014 1055
1,1,1-Trichloroethane	50	50		1	100	8.9	70-130	20	02/07/2014 1055
1,1,2-Trichloroethane	50	50		1	101	0.070	70-130	20	02/07/2014 1055

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ40016-003

Matrix: Aqueous

Batch: 40016

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	52		1	103	6.1	70-130	20	02/07/2014 1055
Trichlorofluoromethane	50	53		1	106	13	70-130	20	02/07/2014 1055
Vinyl chloride	50	54		1	107	10	70-130	20	02/07/2014 1055
Xylenes (total)	100	100		1	101	4.2	70-130	20	02/07/2014 1055
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		97	70-130						
1,2-Dichloroethane-d4		87	70-130						
Toluene-d8		97	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: PQ39883-001

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acenaphthene	ND		1	33	11	ug/kg	02/06/2014 0933
Acenaphthylene	ND		1	33	10	ug/kg	02/06/2014 0933
Anthracene	ND		1	33	7.4	ug/kg	02/06/2014 0933
Benzo(a)anthracene	ND		1	33	8.8	ug/kg	02/06/2014 0933
Benzo(a)pyrene	ND		1	33	9.3	ug/kg	02/06/2014 0933
Benzo(b)fluoranthene	ND		1	33	9.6	ug/kg	02/06/2014 0933
Benzo(g,h,i)perylene	ND		1	33	12	ug/kg	02/06/2014 0933
Benzo(k)fluoranthene	ND		1	33	9.5	ug/kg	02/06/2014 0933
Chrysene	ND		1	33	11	ug/kg	02/06/2014 0933
Dibenzo(a,h)anthracene	ND		1	33	9.1	ug/kg	02/06/2014 0933
Fluoranthene	ND		1	33	11	ug/kg	02/06/2014 0933
Fluorene	ND		1	33	9.0	ug/kg	02/06/2014 0933
Indeno(1,2,3-c,d)pyrene	ND		1	33	9.7	ug/kg	02/06/2014 0933
Naphthalene	ND		1	33	10	ug/kg	02/06/2014 0933
Phenanthrene	ND		1	33	9.0	ug/kg	02/06/2014 0933
Pyrene	ND		1	33	13	ug/kg	02/06/2014 0933
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		82	33-102				
Nitrobenzene-d5		77	22-109				
Terphenyl-d14		89	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39883-002

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	670	480		1	72	46-114	02/06/2014 0956
Acenaphthylene	670	550		1	83	44-122	02/06/2014 0956
Anthracene	670	560		1	84	50-119	02/06/2014 0956
Benzo(a)anthracene	670	560		1	84	47-121	02/06/2014 0956
Benzo(a)pyrene	670	620		1	93	55-134	02/06/2014 0956
Benzo(b)fluoranthene	670	650		1	97	28-139	02/06/2014 0956
Benzo(g,h,i)perylene	670	530		1	80	36-125	02/06/2014 0956
Benzo(k)fluoranthene	670	640		1	97	47-130	02/06/2014 0956
Chrysene	670	540		1	81	45-126	02/06/2014 0956
Dibenzo(a,h)anthracene	670	580		1	87	30-130	02/06/2014 0956
Fluoranthene	670	570		1	85	50-123	02/06/2014 0956
Fluorene	670	500		1	76	48-117	02/06/2014 0956
Indeno(1,2,3-c,d)pyrene	670	570		1	85	45-123	02/06/2014 0956
Naphthalene	670	450		1	67	36-110	02/06/2014 0956
Phenanthrene	670	530		1	79	49-117	02/06/2014 0956
Pyrene	670	550		1	83	47-119	02/06/2014 0956
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		72	33-102				
Nitrobenzene-d5		72	22-109				
Terphenyl-d14		89	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: PA31056-005MS

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	ND	790	470		1	59	30-130	02/06/2014 1653
Acenaphthylene	ND	790	520		1	65	30-130	02/06/2014 1653
Anthracene	ND	790	550		1	70	30-130	02/06/2014 1653
Benzo(a)anthracene	ND	790	550		1	70	30-130	02/06/2014 1653
Benzo(a)pyrene	ND	790	620		1	78	30-130	02/06/2014 1653
Benzo(b)fluoranthene	ND	790	710		1	90	30-130	02/06/2014 1653
Benzo(g,h,i)perylene	ND	790	340		1	44	30-130	02/06/2014 1653
Benzo(k)fluoranthene	ND	790	710		1	90	30-130	02/06/2014 1653
Chrysene	ND	790	540		1	68	30-130	02/06/2014 1653
Dibenzo(a,h)anthracene	ND	790	410		1	52	30-130	02/06/2014 1653
Fluoranthene	ND	790	570		1	73	30-130	02/06/2014 1653
Fluorene	ND	790	490		1	62	30-130	02/06/2014 1653
Indeno(1,2,3-c,d)pyrene	ND	790	400		1	50	30-130	02/06/2014 1653
Naphthalene	ND	790	380		1	48	30-130	02/06/2014 1653
Phenanthrene	ND	790	520		1	67	30-130	02/06/2014 1653
Pyrene	ND	790	560		1	71	30-130	02/06/2014 1653
Surrogate	Q	% Rec	Acceptance Limit					
2-Fluorobiphenyl		54	33-102					
Nitrobenzene-d5		51	22-109					
Terphenyl-d14		75	41-120					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: PA31056-005MD

Matrix: Solid

Batch: 39883

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/05/2014 2210

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Acenaphthene	ND	800	490	1		62	5.7	30-130	40	02/06/2014 1716	
Acenaphthylene	ND	800	550	1		68	6.3	30-130	40	02/06/2014 1716	
Anthracene	ND	800	550	1		69	0.65	30-130	40	02/06/2014 1716	
Benzo(a)anthracene	ND	800	550	1		68	0.34	30-130	40	02/06/2014 1716	
Benzo(a)pyrene	ND	800	600	1		75	2.9	30-130	40	02/06/2014 1716	
Benzo(b)fluoranthene	ND	800	660	1		82	7.1	30-130	40	02/06/2014 1716	
Benzo(g,h,i)perylene	ND	800	380	1		47	8.6	30-130	40	02/06/2014 1716	
Benzo(k)fluoranthene	ND	800	710	1		88	0.54	30-130	40	02/06/2014 1716	
Chrysene	ND	800	530	1		66	1.3	30-130	40	02/06/2014 1716	
Dibenzo(a,h)anthracene	ND	800	430	1		54	5.5	30-130	40	02/06/2014 1716	
Fluoranthene	ND	800	560	1		70	2.1	30-130	40	02/06/2014 1716	
Fluorene	ND	800	500	1		63	2.4	30-130	40	02/06/2014 1716	
Indeno(1,2,3-c,d)pyrene	ND	800	420	1		52	5.0	30-130	40	02/06/2014 1716	
Naphthalene	ND	800	420	1		53	11	30-130	40	02/06/2014 1716	
Phenanthrene	ND	800	530	1		66	1.4	30-130	40	02/06/2014 1716	
Pyrene	ND	800	550	1		68	1.5	30-130	40	02/06/2014 1716	
Surrogate	Q	% Rec	Acceptance Limit								
2-Fluorobiphenyl		54	33-102								
Nitrobenzene-d5		56	22-109								
Terphenyl-d14		73	41-120								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: PQ40082-001

Matrix: Solid

Batch: 40082

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/10/2014 940

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acenaphthene	ND		1	33	11	ug/kg	02/10/2014 1435
Acenaphthylene	ND		1	33	10	ug/kg	02/10/2014 1435
Anthracene	ND		1	33	7.4	ug/kg	02/10/2014 1435
Benzo(a)anthracene	ND		1	33	8.8	ug/kg	02/10/2014 1435
Benzo(a)pyrene	ND		1	33	9.3	ug/kg	02/10/2014 1435
Benzo(b)fluoranthene	ND		1	33	9.6	ug/kg	02/10/2014 1435
Benzo(g,h,i)perylene	ND		1	33	12	ug/kg	02/10/2014 1435
Benzo(k)fluoranthene	ND		1	33	9.5	ug/kg	02/10/2014 1435
Chrysene	ND		1	33	11	ug/kg	02/10/2014 1435
Dibenzo(a,h)anthracene	ND		1	33	9.1	ug/kg	02/10/2014 1435
Fluoranthene	ND		1	33	11	ug/kg	02/10/2014 1435
Fluorene	ND		1	33	9.0	ug/kg	02/10/2014 1435
Indeno(1,2,3-c,d)pyrene	ND		1	33	9.7	ug/kg	02/10/2014 1435
Naphthalene	ND		1	33	10	ug/kg	02/10/2014 1435
Phenanthrene	ND		1	33	9.0	ug/kg	02/10/2014 1435
Pyrene	ND		1	33	13	ug/kg	02/10/2014 1435
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		70	33-102				
Nitrobenzene-d5		66	22-109				
Terphenyl-d14		83	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: PQ40082-002

Matrix: Solid

Batch: 40082

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/10/2014 940

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	670	490		1	74	46-114	02/10/2014 1500
Acenaphthylene	670	520		1	78	44-122	02/10/2014 1500
Anthracene	670	500		1	75	50-119	02/10/2014 1500
Benzo(a)anthracene	670	500		1	75	47-121	02/10/2014 1500
Benzo(a)pyrene	670	540		1	81	55-134	02/10/2014 1500
Benzo(b)fluoranthene	670	550		1	82	28-139	02/10/2014 1500
Benzo(g,h,i)perylene	670	540		1	80	36-125	02/10/2014 1500
Benzo(k)fluoranthene	670	560		1	84	47-130	02/10/2014 1500
Chrysene	670	480		1	72	45-126	02/10/2014 1500
Dibenzo(a,h)anthracene	670	520		1	78	30-130	02/10/2014 1500
Fluoranthene	670	500		1	75	50-123	02/10/2014 1500
Fluorene	670	480		1	72	48-117	02/10/2014 1500
Indeno(1,2,3-c,d)pyrene	670	530		1	79	45-123	02/10/2014 1500
Naphthalene	670	410		1	62	36-110	02/10/2014 1500
Phenanthrene	670	480		1	72	49-117	02/10/2014 1500
Pyrene	670	480		1	71	47-119	02/10/2014 1500
Surrogate	Q	% Rec	Acceptance Limit				
2-Fluorobiphenyl		68	33-102				
Nitrobenzene-d5		65	22-109				
Terphenyl-d14		79	41-120				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: PA31056-012MS

Matrix: Solid

Batch: 40082

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/10/2014 940

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acenaphthene	ND	790	520		1	65	30-130	02/10/2014 1550
Acenaphthylene	ND	790	540		1	69	30-130	02/10/2014 1550
Anthracene	ND	790	530		1	68	30-130	02/10/2014 1550
Benzo(a)anthracene	ND	790	520		1	66	30-130	02/10/2014 1550
Benzo(a)pyrene	ND	790	580		1	74	30-130	02/10/2014 1550
Benzo(b)fluoranthene	ND	790	590		1	75	30-130	02/10/2014 1550
Benzo(g,h,i)perylene	ND	790	580		1	73	30-130	02/10/2014 1550
Benzo(k)fluoranthene	ND	790	590		1	75	30-130	02/10/2014 1550
Chrysene	ND	790	500		1	64	30-130	02/10/2014 1550
Dibenzo(a,h)anthracene	ND	790	550		1	70	30-130	02/10/2014 1550
Fluoranthene	ND	790	530		1	67	30-130	02/10/2014 1550
Fluorene	ND	790	520		1	66	30-130	02/10/2014 1550
Indeno(1,2,3-c,d)pyrene	ND	790	560		1	71	30-130	02/10/2014 1550
Naphthalene	ND	790	420		1	53	30-130	02/10/2014 1550
Phenanthrene	ND	790	510		1	65	30-130	02/10/2014 1550
Pyrene	ND	790	500		1	63	30-130	02/10/2014 1550
Surrogate	Q	% Rec	Acceptance Limit					
2-Fluorobiphenyl		62	33-102					
Nitrobenzene-d5		58	22-109					
Terphenyl-d14		70	41-120					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: PA31056-012MD

Matrix: Solid

Batch: 40082

Prep Method: 3550C

Analytical Method: 8270D

Prep Date: 02/10/2014 940

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Acenaphthene	ND	780	440	1		56	17	30-130	40	02/10/2014 1616	
Acenaphthylene	ND	780	460	1		59	17	30-130	40	02/10/2014 1616	
Anthracene	ND	780	470	1		61	13	30-130	40	02/10/2014 1616	
Benzo(a)anthracene	ND	780	440	1		57	16	30-130	40	02/10/2014 1616	
Benzo(a)pyrene	ND	780	490	1		63	17	30-130	40	02/10/2014 1616	
Benzo(b)fluoranthene	ND	780	510	1		65	16	30-130	40	02/10/2014 1616	
Benzo(g,h,i)perylene	ND	780	470	1		60	21	30-130	40	02/10/2014 1616	
Benzo(k)fluoranthene	ND	780	490	1		64	18	30-130	40	02/10/2014 1616	
Chrysene	ND	780	420	1		55	17	30-130	40	02/10/2014 1616	
Dibenzo(a,h)anthracene	ND	780	460	1		59	19	30-130	40	02/10/2014 1616	
Fluoranthene	ND	780	470	1		60	13	30-130	40	02/10/2014 1616	
Fluorene	ND	780	440	1		56	17	30-130	40	02/10/2014 1616	
Indeno(1,2,3-c,d)pyrene	ND	780	460	1		59	20	30-130	40	02/10/2014 1616	
Naphthalene	ND	780	350	1		45	17	30-130	40	02/10/2014 1616	
Phenanthrene	ND	780	440	1		57	14	30-130	40	02/10/2014 1616	
Pyrene	ND	780	430	1		55	15	30-130	40	02/10/2014 1616	
Surrogate	Q	% Rec	Acceptance Limit								
2-Fluorobiphenyl		50	33-102								
Nitrobenzene-d5		48	22-109								
Terphenyl-d14		60	41-120								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - MB

Sample ID: PQ39617-001

Matrix: Solid

Batch: 39617

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 02/03/2014 1150

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Aroclor 1016	ND		1	17	1.1	ug/kg	02/06/2014 1248
Aroclor 1221	ND		1	17	9.7	ug/kg	02/06/2014 1248
Aroclor 1232	ND		1	17	3.3	ug/kg	02/06/2014 1248
Aroclor 1242	ND		1	17	2.3	ug/kg	02/06/2014 1248
Aroclor 1248	ND		1	17	3.8	ug/kg	02/06/2014 1248
Aroclor 1254	ND		1	17	1.8	ug/kg	02/06/2014 1248
Aroclor 1260	ND		1	17	5.7	ug/kg	02/06/2014 1248
Surrogate	Q	% Rec	Acceptance Limit				
Decachlorobiphenyl		83	41-132				
Tetrachloro-m-xylene		77	35-106				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - LCS

Sample ID: PQ39617-002

Matrix: Solid

Batch: 39617

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 02/03/2014 1150

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aroclor 1016	83	71		1	86	70-130	02/06/2014 1300
Aroclor 1260	83	82		1	99	70-130	02/06/2014 1300
Surrogate	Q	% Rec	Acceptance Limit				
Decachlorobiphenyl		85	41-132				
Tetrachloro-m-xylene		81	35-106				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - MS

Sample ID: PA31056-005MS

Matrix: Solid

Batch: 39617

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 02/03/2014 1150

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aroclor 1016	ND	99	77		1	78	70-130	02/10/2014 1305
Aroclor 1260	ND	99	80		1	80	70-130	02/10/2014 1305
Surrogate	Q	% Rec	Acceptance Limit					
Decachlorobiphenyl		73	41-132					
Tetrachloro-m-xylene		73	35-106					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PCBs by GC - MSD

Sample ID: PA31056-005MD

Matrix: Solid

Batch: 39617

Prep Method: 3550C

Analytical Method: 8082A

Prep Date: 02/03/2014 1150

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Aroclor 1016	ND	99	81		1	81	4.0	70-130	20	02/10/2014 1317	
Aroclor 1260	ND	99	83		1	83	4.0	70-130	20	02/10/2014 1317	
Surrogate	Q	% Rec	Acceptance Limit								
Decachlorobiphenyl		76	41-132								
Tetrachloro-m-xylene		73	35-106								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Metals - MB

Sample ID: PQ39633-001

Batch: 39633

Analytical Method: 6010C

Matrix: Solid

Prep Method: 3050B

Prep Date: 02/03/2014 1507

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Arsenic	ND		1	0.50	0.19	mg/kg	02/05/2014 0126
Barium	ND		1	1.3	0.091	mg/kg	02/05/2014 0126
Cadmium	0.019	J	1	0.10	0.011	mg/kg	02/05/2014 0126
Chromium	0.23	J	1	0.25	0.051	mg/kg	02/05/2014 0126
Lead	ND		1	0.50	0.093	mg/kg	02/05/2014 0126
Nickel	ND		1	2.0	0.15	mg/kg	02/05/2014 0126
Selenium	0.21	J	1	0.50	0.17	mg/kg	02/05/2014 0126
Silver	ND		1	0.25	0.042	mg/kg	02/05/2014 0126

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Metals - LCS

Sample ID: PQ39633-002

Batch: 39633

Analytical Method: 6010C

Matrix: Solid

Prep Method: 3050B

Prep Date: 02/03/2014 1507

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Arsenic	240	220		1	92	80-120	02/05/2014 0130
Barium	480	470		1	97	80-120	02/05/2014 0130
Cadmium	48	47		1	99	80-120	02/05/2014 0130
Chromium	240	240		1	99	80-120	02/05/2014 0130
Lead	240	230		1	98	80-120	02/05/2014 0130
Nickel	96	95		1	99	80-120	02/05/2014 0130
Selenium	48	43		1	89	80-120	02/05/2014 0130
Silver	240	250		1	103	80-120	02/05/2014 0130

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Page: 73 of 77
Level 1 Report v2.1

Metals - LCSD

Sample ID: PQ39633-003

Batch: 39633

Analytical Method: 6010C

Matrix: Solid

Prep Method: 3050B

Prep Date: 02/03/2014 1507

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Arsenic	250	230		1	93	4.4	80-120	20	02/05/2014 0133
Barium	500	480		1	96	2.4	80-120	20	02/05/2014 0133
Cadmium	50	48		1	96	1.2	80-120	20	02/05/2014 0133
Chromium	250	240		1	98	3.3	80-120	20	02/05/2014 0133
Lead	250	240		1	97	3.0	80-120	20	02/05/2014 0133
Nickel	100	98		1	98	2.2	80-120	20	02/05/2014 0133
Selenium	50	45		1	89	4.4	80-120	20	02/05/2014 0133
Silver	250	260		1	104	4.5	80-120	20	02/05/2014 0133

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Metals - MB

Sample ID: PQ39693-001

Batch: 39693

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/04/2014 1456

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Mercury	ND		1	0.083	0.0059	mg/kg	02/04/2014 1611

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Page: 75 of 77
Level 1 Report v2.1

Metals - LCS

Sample ID: PQ39693-002

Batch: 39693

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/04/2014 1456

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.74	0.75		1	101	85-115	02/04/2014 1614

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Page: 76 of 77
Level 1 Report v2.1

Metals - LCSD

Sample ID: PQ39693-003

Batch: 39693

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/04/2014 1456

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.78	0.77		1	100	2.9	85-115	20	02/04/2014 1616

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 13

Page 1 of 1
 Replaces Date: 09/24/13
 Effective Date: 09/26/13

Sample Receipt Checklist (SRC)

Client: Aecom

Cooler Inspected by/date: KWP 11-31-14 Lot #: PA3105U

Means of receipt: <input checked="" type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>15316.0°C</u> / <u>1</u> / <u>1</u> °C / <u>1</u> / <u>1</u> °C / <u>1</u> / <u>1</u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>#3</u> IR Gun Correction Factor: <u>-0.3</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Was collection date & time listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	14. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	15. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L for NH ₃ /TKN/cyanide/phenol		
Sample labels verified by: _____		Date: _____

Corrective Action taken, if necessary:

Was client notified: Yes No

Did client respond: Yes No

SESI employee: _____

Date of response: _____

Comments: _____

Report of Analysis

AECOM

810 Dutch Square Blvd.
Suite 202
Columbia, SC 29210
Attention: Scott Ross

Project Name: **Phase II ESA - Shakespeare**

Lot Number: **PB03028**

Date Completed: **02/11/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* **PB03028** *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PB03028

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PB03028

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-5	Aqueous	02/03/2014 1050	02/03/2014
002	TMW-6	Aqueous	02/03/2014 1130	02/03/2014
003	TMW-7	Aqueous	02/03/2014 1305	02/03/2014
004	TMW-8	Aqueous	02/03/2014 1402	02/03/2014
005	TB-01-020314	Aqueous	02/03/2014	02/03/2014

(5 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PB03028

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-5	Aqueous	Benzene	8260B	0.52	J	ug/L	5
001	TMW-5	Aqueous	Carbon disulfide	8260B	4.2	J	ug/L	5
001	TMW-5	Aqueous	1,1-Dichloroethane	8260B	1.6	J	ug/L	5
001	TMW-5	Aqueous	1,1-Dichloroethene	8260B	1.5	J	ug/L	5
001	TMW-5	Aqueous	cis-1,2-Dichloroethene	8260B	250		ug/L	5
001	TMW-5	Aqueous	trans-1,2-Dichloroethene	8260B	6.5		ug/L	5
001	TMW-5	Aqueous	Styrene	8260B	4.4	J	ug/L	5
001	TMW-5	Aqueous	Trichloroethene	8260B	43		ug/L	6
001	TMW-5	Aqueous	Vinyl chloride	8260B	38		ug/L	6
002	TMW-6	Aqueous	Acetone	8260B	21		ug/L	7
002	TMW-6	Aqueous	2-Butanone (MEK)	8260B	2.7	J	ug/L	7
002	TMW-6	Aqueous	Chloroform	8260B	2.3	J	ug/L	7
002	TMW-6	Aqueous	Styrene	8260B	5.7		ug/L	7
002	TMW-6	Aqueous	Trichloroethene	8260B	23		ug/L	8
003	TMW-7	Aqueous	Toluene	8260B	19		ug/L	9
004	TMW-8	Aqueous	Styrene	8260B	3.3	J	ug/L	11

(16 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-001
Description: TMW-5	Matrix: Aqueous
Date Sampled: 02/03/2014 1050	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0633	PMM2		39970
2	5030B	8260B	5	02/10/2014 1527	ALL		40113

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.52	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	4.2	J	5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	1.6	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	1.5	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	250		25	1.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	6.5		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	4.4	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-001
Description: TMW-5	Matrix: Aqueous
Date Sampled: 02/03/2014 1050	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0633	PMM2		39970
2	5030B	8260B	5	02/10/2014 1527	ALL		40113

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1
Trichloroethene	79-01-6	8260B	43		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	38		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130		110	70-130
Bromofluorobenzene		93	70-130		113	70-130
Toluene-d8		95	70-130		110	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PB03028-002**

 Description: **TMW-6**

 Matrix: **Aqueous**

 Date Sampled: **02/03/2014 1130**

 Date Received: **02/03/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0719	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	21		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	2.7	J	10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	2.3	J	5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	5.7		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit
 B = Detected in the method blank
 E = Quantitation of compound exceeded the calibration range
 H = Out of holding time
 ND = Not detected at or above the MDL
 J = Estimated result < PQL and ≥ MDL
 P = The RPD between two GC columns exceeds 40%
 N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-002
Description: TMW-6	Matrix: Aqueous
Date Sampled: 02/03/2014 1130	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0719	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	23		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PB03028-003**

 Description: **TMW-7**

 Matrix: **Aqueous**

 Date Sampled: **02/03/2014 1305**

 Date Received: **02/03/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 2344	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	19		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-003
Description: TMW-7	Matrix: Aqueous
Date Sampled: 02/03/2014 1305	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/06/2014 2344	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		87	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-004
Description: TMW-8	Matrix: Aqueous
Date Sampled: 02/03/2014 1402	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0116	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	3.3	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-004
Description: TMW-8	Matrix: Aqueous
Date Sampled: 02/03/2014 1402	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0116	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PB03028-005**

 Description: **TB-01-020314**

 Matrix: **Aqueous**

 Date Sampled: **02/03/2014**

 Date Received: **02/03/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0030	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PB03028-005
Description: TB-01-020314	Matrix: Aqueous
Date Sampled: 02/03/2014	
Date Received: 02/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/07/2014 0030	PMM2		39970

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39970-001

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	02/06/2014 2244
Benzene	ND		1	5.0	0.20	ug/L	02/06/2014 2244
Bromodichloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Bromoform	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	02/06/2014 2244
2-Butanone (MEK)	ND		1	10	1.8	ug/L	02/06/2014 2244
Carbon disulfide	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Chlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Chloroethane	ND		1	5.0	0.50	ug/L	02/06/2014 2244
Chloroform	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Cyclohexane	ND		1	5.0	0.98	ug/L	02/06/2014 2244
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	02/06/2014 2244
Dibromochloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	02/06/2014 2244
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	02/06/2014 2244
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 2244
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 2244
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Ethylbenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
2-Hexanone	ND		1	10	1.0	ug/L	02/06/2014 2244
Isopropylbenzene	ND		1	5.0	1.0	ug/L	02/06/2014 2244
Methyl acetate	ND		1	5.0	0.72	ug/L	02/06/2014 2244
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	02/06/2014 2244
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	02/06/2014 2244
Methylcyclohexane	ND		1	5.0	0.95	ug/L	02/06/2014 2244
Methylene chloride	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Styrene	ND		1	5.0	0.10	ug/L	02/06/2014 2244
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Tetrachloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Toluene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	02/06/2014 2244
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Trichloroethene	ND		1	5.0	0.30	ug/L	02/06/2014 2244

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39970-001

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Vinyl chloride	ND		1	2.0	0.10	ug/L	02/06/2014 2244
Xylenes (total)	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		87	70-130				
1,2-Dichloroethane-d4		82	70-130				
Toluene-d8		86	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39970-002

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	02/06/2014 2113
Benzene	50	46		1	93	70-130	02/06/2014 2113
Bromodichloromethane	50	52		1	103	70-130	02/06/2014 2113
Bromoform	50	46		1	92	70-130	02/06/2014 2113
Bromomethane (Methyl bromide)	50	52		1	103	60-140	02/06/2014 2113
2-Butanone (MEK)	100	110		1	106	60-140	02/06/2014 2113
Carbon disulfide	50	49		1	99	60-140	02/06/2014 2113
Carbon tetrachloride	50	49		1	98	70-130	02/06/2014 2113
Chlorobenzene	50	49		1	99	70-130	02/06/2014 2113
Chloroethane	50	50		1	100	42-163	02/06/2014 2113
Chloroform	50	45		1	90	70-130	02/06/2014 2113
Chloromethane (Methyl chloride)	50	54		1	108	60-140	02/06/2014 2113
Cyclohexane	50	48		1	96	70-130	02/06/2014 2113
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	02/06/2014 2113
Dibromochloromethane	50	47		1	94	70-130	02/06/2014 2113
1,2-Dibromoethane (EDB)	50	55		1	109	70-130	02/06/2014 2113
1,2-Dichlorobenzene	50	50		1	100	70-130	02/06/2014 2113
1,4-Dichlorobenzene	50	49		1	98	70-130	02/06/2014 2113
1,3-Dichlorobenzene	50	49		1	98	70-130	02/06/2014 2113
Dichlorodifluoromethane	50	55		1	110	60-140	02/06/2014 2113
1,1-Dichloroethane	50	44		1	89	70-130	02/06/2014 2113
1,2-Dichloroethane	50	47		1	94	70-130	02/06/2014 2113
1,1-Dichloroethene	50	49		1	97	70-130	02/06/2014 2113
trans-1,2-Dichloroethene	50	44		1	88	70-130	02/06/2014 2113
1,2-Dichloropropane	50	49		1	99	70-130	02/06/2014 2113
trans-1,3-Dichloropropene	50	46		1	91	70-130	02/06/2014 2113
cis-1,3-Dichloropropene	50	46		1	92	70-130	02/06/2014 2113
Ethylbenzene	50	48		1	97	70-130	02/06/2014 2113
2-Hexanone	100	100		1	100	60-140	02/06/2014 2113
Isopropylbenzene	50	48		1	95	70-130	02/06/2014 2113
Methyl acetate	50	48		1	95	70-130	02/06/2014 2113
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	02/06/2014 2113
4-Methyl-2-pentanone	100	100		1	102	60-140	02/06/2014 2113
Methylcyclohexane	50	48		1	95	70-130	02/06/2014 2113
Methylene chloride	50	49		1	98	70-130	02/06/2014 2113
Styrene	50	45		1	90	70-130	02/06/2014 2113
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	02/06/2014 2113
Tetrachloroethene	50	51		1	103	70-130	02/06/2014 2113
Toluene	50	49		1	98	70-130	02/06/2014 2113
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	118	70-130	02/06/2014 2113
1,2,4-Trichlorobenzene	50	46		1	92	70-130	02/06/2014 2113
1,1,1-Trichloroethane	50	45		1	91	70-130	02/06/2014 2113
1,1,2-Trichloroethane	50	51		1	102	70-130	02/06/2014 2113
Trichloroethene	50	51		1	101	70-130	02/06/2014 2113

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39970-002

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	47		1	94	70-130	02/06/2014 2113
Vinyl chloride	50	54		1	108	70-130	02/06/2014 2113
Xylenes (total)	100	100		1	100	70-130	02/06/2014 2113
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		90			70-130		
1,2-Dichloroethane-d4		81			70-130		
Toluene-d8		88			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39970-003

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	103	6.2	60-140	20	02/06/2014 2135
Benzene	50	48		1	97	4.1	70-130	20	02/06/2014 2135
Bromodichloromethane	50	53		1	106	2.3	70-130	20	02/06/2014 2135
Bromoform	50	46		1	92	0.14	70-130	20	02/06/2014 2135
Bromomethane (Methyl bromide)	50	48		1	96	7.4	60-140	20	02/06/2014 2135
2-Butanone (MEK)	100	98		1	98	8.4	60-140	20	02/06/2014 2135
Carbon disulfide	50	50		1	100	1.3	60-140	20	02/06/2014 2135
Carbon tetrachloride	50	51		1	102	4.4	70-130	20	02/06/2014 2135
Chlorobenzene	50	50		1	100	1.6	70-130	20	02/06/2014 2135
Chloroethane	50	47		1	93	7.6	42-163	20	02/06/2014 2135
Chloroform	50	46		1	92	2.2	70-130	20	02/06/2014 2135
Chloromethane (Methyl chloride)	50	49		1	97	11	60-140	20	02/06/2014 2135
Cyclohexane	50	47		1	95	0.85	70-130	20	02/06/2014 2135
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	4.2	70-130	20	02/06/2014 2135
Dibromochloromethane	50	47		1	94	0.079	70-130	20	02/06/2014 2135
1,2-Dibromoethane (EDB)	50	54		1	108	1.3	70-130	20	02/06/2014 2135
1,2-Dichlorobenzene	50	50		1	101	0.81	70-130	20	02/06/2014 2135
1,4-Dichlorobenzene	50	50		1	100	2.1	70-130	20	02/06/2014 2135
1,3-Dichlorobenzene	50	50		1	101	3.3	70-130	20	02/06/2014 2135
Dichlorodifluoromethane	50	52		1	104	6.2	60-140	20	02/06/2014 2135
1,1-Dichloroethane	50	46		1	92	3.4	70-130	20	02/06/2014 2135
1,2-Dichloroethane	50	47		1	94	0.26	70-130	20	02/06/2014 2135
1,1-Dichloroethene	50	48		1	97	0.55	70-130	20	02/06/2014 2135
trans-1,2-Dichloroethene	50	46		1	91	3.6	70-130	20	02/06/2014 2135
1,2-Dichloropropane	50	50		1	101	2.4	70-130	20	02/06/2014 2135
trans-1,3-Dichloropropene	50	46		1	92	0.81	70-130	20	02/06/2014 2135
cis-1,3-Dichloropropene	50	47		1	93	1.6	70-130	20	02/06/2014 2135
Ethylbenzene	50	50		1	100	3.5	70-130	20	02/06/2014 2135
2-Hexanone	100	97		1	97	3.2	60-140	20	02/06/2014 2135
Isopropylbenzene	50	51		1	101	6.4	70-130	20	02/06/2014 2135
Methyl acetate	50	45		1	90	6.0	70-130	20	02/06/2014 2135
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.40	70-130	20	02/06/2014 2135
4-Methyl-2-pentanone	100	100		1	100	2.4	60-140	20	02/06/2014 2135
Methylcyclohexane	50	51		1	102	6.8	70-130	20	02/06/2014 2135
Methylene chloride	50	50		1	100	1.2	70-130	20	02/06/2014 2135
Styrene	50	46		1	91	1.7	70-130	20	02/06/2014 2135
1,1,2,2-Tetrachloroethane	50	51		1	102	1.5	70-130	20	02/06/2014 2135
Tetrachloroethene	50	54		1	108	4.7	70-130	20	02/06/2014 2135
Toluene	50	50		1	101	2.9	70-130	20	02/06/2014 2135
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	108	8.7	70-130	20	02/06/2014 2135
1,2,4-Trichlorobenzene	50	45		1	90	2.2	70-130	20	02/06/2014 2135
1,1,1-Trichloroethane	50	47		1	94	4.0	70-130	20	02/06/2014 2135
1,1,2-Trichloroethane	50	50		1	101	0.96	70-130	20	02/06/2014 2135
Trichloroethene	50	51		1	103	1.4	70-130	20	02/06/2014 2135

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39970-003

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichlorofluoromethane	50	45		1	89	5.3	70-130	20	02/06/2014 2135
Vinyl chloride	50	48		1	97	11	70-130	20	02/06/2014 2135
Xylenes (total)	100	100		1	104	3.6	70-130	20	02/06/2014 2135
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		89	70-130						
1,2-Dichloroethane-d4		81	70-130						
Toluene-d8		88	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39970-001

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	02/06/2014 2244
Benzene	ND		1	5.0	0.20	ug/L	02/06/2014 2244
Bromodichloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Bromoform	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	02/06/2014 2244
2-Butanone (MEK)	ND		1	10	1.8	ug/L	02/06/2014 2244
Carbon disulfide	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Chlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Chloroethane	ND		1	5.0	0.50	ug/L	02/06/2014 2244
Chloroform	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Cyclohexane	ND		1	5.0	0.98	ug/L	02/06/2014 2244
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	02/06/2014 2244
Dibromochloromethane	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	02/06/2014 2244
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	02/06/2014 2244
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	02/06/2014 2244
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 2244
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 2244
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Ethylbenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
2-Hexanone	ND		1	10	1.0	ug/L	02/06/2014 2244
Isopropylbenzene	ND		1	5.0	1.0	ug/L	02/06/2014 2244
Methyl acetate	ND		1	5.0	0.72	ug/L	02/06/2014 2244
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	02/06/2014 2244
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	02/06/2014 2244
Methylcyclohexane	ND		1	5.0	0.95	ug/L	02/06/2014 2244
Methylene chloride	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Styrene	ND		1	5.0	0.10	ug/L	02/06/2014 2244
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Tetrachloroethene	ND		1	5.0	0.40	ug/L	02/06/2014 2244
Toluene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	02/06/2014 2244
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	02/06/2014 2244
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ39970-001

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	02/06/2014 2244
Vinyl chloride	ND		1	2.0	0.10	ug/L	02/06/2014 2244
Xylenes (total)	ND		1	5.0	1.7	ug/L	02/06/2014 2244
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		87	70-130				
1,2-Dichloroethane-d4		82	70-130				
Toluene-d8		86	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39970-002

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	02/06/2014 2113
Benzene	50	46		1	93	70-130	02/06/2014 2113
Bromodichloromethane	50	52		1	103	70-130	02/06/2014 2113
Bromoform	50	46		1	92	70-130	02/06/2014 2113
Bromomethane (Methyl bromide)	50	52		1	103	60-140	02/06/2014 2113
2-Butanone (MEK)	100	110		1	106	60-140	02/06/2014 2113
Carbon disulfide	50	49		1	99	60-140	02/06/2014 2113
Carbon tetrachloride	50	49		1	98	70-130	02/06/2014 2113
Chlorobenzene	50	49		1	99	70-130	02/06/2014 2113
Chloroethane	50	50		1	100	42-163	02/06/2014 2113
Chloroform	50	45		1	90	70-130	02/06/2014 2113
Chloromethane (Methyl chloride)	50	54		1	108	60-140	02/06/2014 2113
Cyclohexane	50	48		1	96	70-130	02/06/2014 2113
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	02/06/2014 2113
Dibromochloromethane	50	47		1	94	70-130	02/06/2014 2113
1,2-Dibromoethane (EDB)	50	55		1	109	70-130	02/06/2014 2113
1,2-Dichlorobenzene	50	50		1	100	70-130	02/06/2014 2113
1,4-Dichlorobenzene	50	49		1	98	70-130	02/06/2014 2113
1,3-Dichlorobenzene	50	49		1	98	70-130	02/06/2014 2113
Dichlorodifluoromethane	50	55		1	110	60-140	02/06/2014 2113
1,1-Dichloroethane	50	44		1	89	70-130	02/06/2014 2113
1,2-Dichloroethane	50	47		1	94	70-130	02/06/2014 2113
cis-1,2-Dichloroethene	50	45		1	91	70-130	02/06/2014 2113
1,1-Dichloroethene	50	49		1	97	70-130	02/06/2014 2113
trans-1,2-Dichloroethene	50	44		1	88	70-130	02/06/2014 2113
1,2-Dichloropropane	50	49		1	99	70-130	02/06/2014 2113
trans-1,3-Dichloropropene	50	46		1	91	70-130	02/06/2014 2113
cis-1,3-Dichloropropene	50	46		1	92	70-130	02/06/2014 2113
Ethylbenzene	50	48		1	97	70-130	02/06/2014 2113
2-Hexanone	100	100		1	100	60-140	02/06/2014 2113
Isopropylbenzene	50	48		1	95	70-130	02/06/2014 2113
Methyl acetate	50	48		1	95	70-130	02/06/2014 2113
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	02/06/2014 2113
4-Methyl-2-pentanone	100	100		1	102	60-140	02/06/2014 2113
Methylcyclohexane	50	48		1	95	70-130	02/06/2014 2113
Methylene chloride	50	49		1	98	70-130	02/06/2014 2113
Styrene	50	45		1	90	70-130	02/06/2014 2113
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	02/06/2014 2113
Tetrachloroethene	50	51		1	103	70-130	02/06/2014 2113
Toluene	50	49		1	98	70-130	02/06/2014 2113
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	118	70-130	02/06/2014 2113
1,2,4-Trichlorobenzene	50	46		1	92	70-130	02/06/2014 2113
1,1,1-Trichloroethane	50	45		1	91	70-130	02/06/2014 2113
1,1,2-Trichloroethane	50	51		1	102	70-130	02/06/2014 2113

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ39970-002

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	101	70-130	02/06/2014 2113
Trichlorofluoromethane	50	47		1	94	70-130	02/06/2014 2113
Vinyl chloride	50	54		1	108	70-130	02/06/2014 2113
Xylenes (total)	100	100		1	100	70-130	02/06/2014 2113
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		90	70-130				
1,2-Dichloroethane-d4		81	70-130				
Toluene-d8		88	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39970-003

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	103	6.2	60-140	20	02/06/2014 2135
Benzene	50	48		1	97	4.1	70-130	20	02/06/2014 2135
Bromodichloromethane	50	53		1	106	2.3	70-130	20	02/06/2014 2135
Bromoform	50	46		1	92	0.14	70-130	20	02/06/2014 2135
Bromomethane (Methyl bromide)	50	48		1	96	7.4	60-140	20	02/06/2014 2135
2-Butanone (MEK)	100	98		1	98	8.4	60-140	20	02/06/2014 2135
Carbon disulfide	50	50		1	100	1.3	60-140	20	02/06/2014 2135
Carbon tetrachloride	50	51		1	102	4.4	70-130	20	02/06/2014 2135
Chlorobenzene	50	50		1	100	1.6	70-130	20	02/06/2014 2135
Chloroethane	50	47		1	93	7.6	42-163	20	02/06/2014 2135
Chloroform	50	46		1	92	2.2	70-130	20	02/06/2014 2135
Chloromethane (Methyl chloride)	50	49		1	97	11	60-140	20	02/06/2014 2135
Cyclohexane	50	47		1	95	0.85	70-130	20	02/06/2014 2135
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	4.2	70-130	20	02/06/2014 2135
Dibromochloromethane	50	47		1	94	0.079	70-130	20	02/06/2014 2135
1,2-Dibromoethane (EDB)	50	54		1	108	1.3	70-130	20	02/06/2014 2135
1,2-Dichlorobenzene	50	50		1	101	0.81	70-130	20	02/06/2014 2135
1,4-Dichlorobenzene	50	50		1	100	2.1	70-130	20	02/06/2014 2135
1,3-Dichlorobenzene	50	50		1	101	3.3	70-130	20	02/06/2014 2135
Dichlorodifluoromethane	50	52		1	104	6.2	60-140	20	02/06/2014 2135
1,1-Dichloroethane	50	46		1	92	3.4	70-130	20	02/06/2014 2135
1,2-Dichloroethane	50	47		1	94	0.26	70-130	20	02/06/2014 2135
cis-1,2-Dichloroethene	50	47		1	94	2.9	70-130	20	02/06/2014 2135
1,1-Dichloroethene	50	48		1	97	0.55	70-130	20	02/06/2014 2135
trans-1,2-Dichloroethene	50	46		1	91	3.6	70-130	20	02/06/2014 2135
1,2-Dichloropropane	50	50		1	101	2.4	70-130	20	02/06/2014 2135
trans-1,3-Dichloropropene	50	46		1	92	0.81	70-130	20	02/06/2014 2135
cis-1,3-Dichloropropene	50	47		1	93	1.6	70-130	20	02/06/2014 2135
Ethylbenzene	50	50		1	100	3.5	70-130	20	02/06/2014 2135
2-Hexanone	100	97		1	97	3.2	60-140	20	02/06/2014 2135
Isopropylbenzene	50	51		1	101	6.4	70-130	20	02/06/2014 2135
Methyl acetate	50	45		1	90	6.0	70-130	20	02/06/2014 2135
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.40	70-130	20	02/06/2014 2135
4-Methyl-2-pentanone	100	100		1	100	2.4	60-140	20	02/06/2014 2135
Methylcyclohexane	50	51		1	102	6.8	70-130	20	02/06/2014 2135
Methylene chloride	50	50		1	100	1.2	70-130	20	02/06/2014 2135
Styrene	50	46		1	91	1.7	70-130	20	02/06/2014 2135
1,1,2,2-Tetrachloroethane	50	51		1	102	1.5	70-130	20	02/06/2014 2135
Tetrachloroethene	50	54		1	108	4.7	70-130	20	02/06/2014 2135
Toluene	50	50		1	101	2.9	70-130	20	02/06/2014 2135
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	108	8.7	70-130	20	02/06/2014 2135
1,2,4-Trichlorobenzene	50	45		1	90	2.2	70-130	20	02/06/2014 2135
1,1,1-Trichloroethane	50	47		1	94	4.0	70-130	20	02/06/2014 2135
1,1,2-Trichloroethane	50	50		1	101	0.96	70-130	20	02/06/2014 2135

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ39970-003

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	51		1	103	1.4	70-130	20	02/06/2014 2135
Trichlorofluoromethane	50	45		1	89	5.3	70-130	20	02/06/2014 2135
Vinyl chloride	50	48		1	97	11	70-130	20	02/06/2014 2135
Xylenes (total)	100	100		1	104	3.6	70-130	20	02/06/2014 2135
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		89	70-130						
1,2-Dichloroethane-d4		81	70-130						
Toluene-d8		88	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PB03028-003MS

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	83		1	83	60-140	02/07/2014 0742
Benzene	ND	50	60		1	121	70-130	02/07/2014 0742
Bromodichloromethane	ND	50	62		1	124	71-143	02/07/2014 0742
Bromoform	ND	50	42		1	84	65-131	02/07/2014 0742
Bromomethane (Methyl bromide)	ND	50	56		1	113	36-168	02/07/2014 0742
2-Butanone (MEK)	ND	100	100		1	105	60-140	02/07/2014 0742
Carbon disulfide	ND	50	54		1	108	60-140	02/07/2014 0742
Carbon tetrachloride	ND	50	55		1	109	37-166	02/07/2014 0742
Chlorobenzene	ND	50	54		1	107	78-129	02/07/2014 0742
Chloroethane	ND	50	56		1	111	60-140	02/07/2014 0742
Chloroform	ND	50	55		1	110	63-123	02/07/2014 0742
Chloromethane (Methyl chloride)	ND	50	59		1	118	20-158	02/07/2014 0742
Cyclohexane	ND	50	55		1	110	70-130	02/07/2014 0742
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	47		1	94	70-130	02/07/2014 0742
Dibromochloromethane	ND	50	46		1	91	74-134	02/07/2014 0742
1,2-Dibromoethane (EDB)	ND	50	54		1	109	70-130	02/07/2014 0742
1,2-Dichlorobenzene	ND	50	52		1	104	70-130	02/07/2014 0742
1,3-Dichlorobenzene	ND	50	53		1	105	70-130	02/07/2014 0742
1,4-Dichlorobenzene	ND	50	51		1	101	70-130	02/07/2014 0742
Dichlorodifluoromethane	ND	50	59		1	118	10-158	02/07/2014 0742
1,1-Dichloroethane	ND	50	50		1	101	69-132	02/07/2014 0742
1,2-Dichloroethane	ND	50	53		1	106	70-130	02/07/2014 0742
1,1-Dichloroethene	ND	50	56		1	113	50-132	02/07/2014 0742
cis-1,2-Dichloroethene	ND	50	52		1	104	70-130	02/07/2014 0742
trans-1,2-Dichloroethene	ND	50	52		1	104	70-130	02/07/2014 0742
1,2-Dichloropropane	ND	50	60		1	121	71-126	02/07/2014 0742
cis-1,3-Dichloropropene	ND	50	56		1	112	69-130	02/07/2014 0742
trans-1,3-Dichloropropene	ND	50	47		1	95	73-131	02/07/2014 0742
Ethylbenzene	ND	50	55		1	109	70-130	02/07/2014 0742
2-Hexanone	ND	100	94		1	94	60-140	02/07/2014 0742
Isopropylbenzene	ND	50	54		1	109	70-130	02/07/2014 0742
Methyl acetate	ND	50	41		1	82	15-128	02/07/2014 0742
Methyl tertiary butyl ether (MTBE)	ND	50	52		1	104	70-130	02/07/2014 0742
4-Methyl-2-pentanone	ND	100	110		1	109	60-140	02/07/2014 0742
Methylcyclohexane	ND	50	63		1	126	70-130	02/07/2014 0742
Methylene chloride	ND	50	58		1	116	69-129	02/07/2014 0742
Styrene	ND	50	49		1	97	70-130	02/07/2014 0742
1,1,2,2-Tetrachloroethane	ND	50	53		1	106	60-155	02/07/2014 0742
Tetrachloroethene	ND	50	54		1	107	70-130	02/07/2014 0742
Toluene	19	50	92	N	1	146	70-130	02/07/2014 0742
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	63		1	125	70-130	02/07/2014 0742
1,2,4-Trichlorobenzene	ND	50	43		1	86	70-130	02/07/2014 0742
1,1,1-Trichloroethane	ND	50	51		1	102	77-132	02/07/2014 0742
1,1,2-Trichloroethane	ND	50	52		1	103	77-132	02/07/2014 0742

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PB03028-003MS

Matrix: Aqueous

Batch: 39970

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	50	59		1	118	73-124	02/07/2014 0742
Trichlorofluoromethane	ND	50	44		1	87	60-140	02/07/2014 0742
Vinyl chloride	ND	50	59		1	117	29-159	02/07/2014 0742
Xylenes (total)	ND	100	110		1	112	70-130	02/07/2014 0742
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		89	70-130					
Bromofluorobenzene		92	70-130					
Toluene-d8		103	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ40113-001

Matrix: Aqueous

Batch: 40113

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	02/10/2014 1101
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		117	70-130				
1,2-Dichloroethane-d4		108	70-130				
Toluene-d8		108	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ40113-002

Matrix: Aqueous

Batch: 40113

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	51		1	103	70-130	02/10/2014 0932
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		115	70-130				
1,2-Dichloroethane-d4		106	70-130				
Toluene-d8		109	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ40113-003

Matrix: Aqueous

Batch: 40113

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	50	50		1	99	3.4	70-130	20	02/10/2014 0954
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		116	70-130						
1,2-Dichloroethane-d4		107	70-130						
Toluene-d8		114	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number **19035**

Client AECOM	Report to Contact Scott Ross	Sampler (Printed Name) James Leaphart	Quote No.
Address Bldg. 516 202	Telephone No. / Fax No. / Email 803 791 1073	Waybill No.	Page 1 of 1
City Columbia	State SC	Zip Code 29210	Number of Containers
Project Name Phase II ESA - SASKAPEVILLE	Preservative 1. Impres. 2. NaOH/ZnA 3. H2SO4	4. HNO3 5. HCl 6. Na Thio.	Rollie (See instructions on back) Preservative Lot No.
P.O. Number	Matrix ☐ Grab ☐ Composite ☐ GW/DW/WW/S ☐ Other	Analysis V-C's V-C's X X X X X	Lot No. P003078 Remarks / Cooler ID 1340
Sample ID / Description (Containers for each sample may be combined on one line)	Date Time	Turn Around Time Required (Prior lab approval required for expedited "AT") ☒ Standard ☐ Rush (Please Specify)	Possible Hazard Identification ☒ Non-Hazard ☒ Flammable ☒ Skin Irritant ☒ Poison ☒ Unknown
TML-5 TML-6 TML-7 TML-8 TB-01-020314	2/3/14 1050 1130 1305 1402 —	Sample Disposal ☐ Return to Client ☒ Dispose by Lab Date Time	1. Received by Date Time
			2. Received by Date Time
			3. Received by Date Time
			4. Laboratory Received by Date Time
Note: All samples are retained for six weeks from receipt unless other arrangements are made.			LAB USE ONLY Received on lot (Check) ☐ Yes ☒ No Receipt Temp. 4-0 °C Temp. Blank U / D

SHEALY ENVIRONMENTAL SERVICES, INC.

Revision Number: 13

Replaces Date: 09/24/13
Effective Date: 09/26/13

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: ECC 12/3/14 Lot #: PB03028

Means of receipt: SESI Client UPS FedEx Airborne Exp Other

Yes No 1. Were custody seals present on the cooler?
 Yes No 2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
143/40 °C / 1 °C (trip blank) °C / 1 °C

Method: Temperature Blank Against Bottles IR Gun ID: #3 IR Gun Correction Factor: -0.3 °C

Method of coolant: Wet Ice Blue Ice Dry Ice None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately).
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		6. Were sample IDs listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		7. Was collection date & time listed?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		8. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		9. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		10. Did all container label information (ID, date, time) agree with COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		12. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		13. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		14. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		15. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>	16. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	20. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H₂SO₄, HNO₃, HCl, NaOH) with the SR # (number) _____

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH₃/TKN/cyanide/phenol

Sample labels verified by: [Signature] Date: 2/3/14

Corrective Action taken, if necessary:

Was client notified: Yes No Did client respond: Yes No

SESI employee: _____ Date of response: _____

Comments: _____

SI DATA PACKAGES

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare Composite Structures**

Project Number: **60318382**

Lot Number: **PE21017**

Date Completed: **05/22/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE21017 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE21017

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

The MS/MSD recoveries in batches 47256 and 47258 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE21017

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-20-2	Solid	05/19/2014 1735	05/21/2014
002	TMW-20-8	Solid	05/19/2014 1745	05/21/2014
003	TMW-20-14	Solid	05/19/2014 1755	05/21/2014
004	B-20-2	Solid	05/20/2014 1015	05/21/2014
005	B-20-11	Solid	05/20/2014 1020	05/21/2014
006	B-20-15	Solid	05/20/2014 1030	05/21/2014
007	B-21-2	Solid	05/20/2014 1125	05/21/2014
008	B-21-9	Solid	05/20/2014 1135	05/21/2014
009	B-21-15	Solid	05/20/2014 1145	05/21/2014
010	B-22-2	Solid	05/20/2014 1400	05/21/2014
011	B-22-8	Solid	05/20/2014 1410	05/21/2014
012	B-22-15	Solid	05/20/2014 1415	05/21/2014
013	B-23-2	Solid	05/20/2014 1610	05/21/2014
014	B-23-8	Solid	05/20/2014 1630	05/21/2014
015	B-23-14	Solid	05/20/2014 1710	05/21/2014
016	B-24-4	Solid	05/20/2014 1845	05/21/2014
017	B-24-8	Solid	05/20/2014 1855	05/21/2014
018	B-24-24	Solid	05/20/2014 1900	05/21/2014
019	TMW-20	Aqueous	05/20/2014 1150	05/21/2014
020	TWM-19	Aqueous	05/20/2014 1505	05/21/2014
021	TB-01-052014	Aqueous	05/20/2014	05/21/2014

(21 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE21017

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	TMW-20-8	Solid	Acetone	8260B	77		ug/kg	8
002	TMW-20-8	Solid	2-Butanone (MEK)	8260B	4.3	J	ug/kg	8
004	B-20-2	Solid	Styrene	8260B	1.5	J	ug/kg	12
005	B-20-11	Solid	Acetone	8260B	73		ug/kg	14
005	B-20-11	Solid	2-Butanone (MEK)	8260B	14		ug/kg	14
005	B-20-11	Solid	Ethylbenzene	8260B	20		ug/kg	14
005	B-20-11	Solid	Tetrachloroethene	8260B	0.51	J	ug/kg	14
006	B-20-15	Solid	Styrene	8260B	1.7	J	ug/kg	16
008	B-21-9	Solid	Acetone	8260B	24		ug/kg	20
008	B-21-9	Solid	2-Butanone (MEK)	8260B	2.2	J	ug/kg	20
008	B-21-9	Solid	Ethylbenzene	8260B	2.6	J	ug/kg	20
009	B-21-15	Solid	Styrene	8260B	2.6	J	ug/kg	22
009	B-21-15	Solid	Tetrachloroethene	8260B	0.50	J	ug/kg	22
009	B-21-15	Solid	Trichloroethene	8260B	6.0		ug/kg	23
011	B-22-8	Solid	Acetone	8260B	66		ug/kg	26
011	B-22-8	Solid	2-Butanone (MEK)	8260B	6.3	J	ug/kg	26
011	B-22-8	Solid	Carbon tetrachloride	8260B	5.3		ug/kg	26
011	B-22-8	Solid	Cyclohexane	8260B	0.94	J	ug/kg	26
011	B-22-8	Solid	1,1,2,2-Tetrachloroethane	8260B	27		ug/kg	26
013	B-23-2	Solid	Styrene	8260B	4.1	J	ug/kg	30
014	B-23-8	Solid	Acetone	8260B	33		ug/kg	32
014	B-23-8	Solid	Styrene	8260B	7.4		ug/kg	32
015	B-23-14	Solid	Acetone	8260B	8.9	J	ug/kg	34
015	B-23-14	Solid	Styrene	8260B	11		ug/kg	34
016	B-24-4	Solid	Acetone	8260B	41		ug/kg	36
016	B-24-4	Solid	Styrene	8260B	2.4	J	ug/kg	36
017	B-24-8	Solid	Acetone	8260B	42		ug/kg	38
017	B-24-8	Solid	2-Butanone (MEK)	8260B	6.7	J	ug/kg	38
017	B-24-8	Solid	cis-1,2-Dichloroethene	8260B	33		ug/kg	38
017	B-24-8	Solid	Ethylbenzene	8260B	16		ug/kg	38
017	B-24-8	Solid	Toluene	8260B	9.8		ug/kg	38
017	B-24-8	Solid	Trichloroethene	8260B	30		ug/kg	39
018	B-24-24	Solid	cis-1,2-Dichloroethene	8260B	170		ug/kg	40
018	B-24-24	Solid	Styrene	8260B	9.0		ug/kg	40
018	B-24-24	Solid	Tetrachloroethene	8260B	0.66	J	ug/kg	40
018	B-24-24	Solid	Trichloroethene	8260B	83		ug/kg	41
019	TMW-20	Aqueous	Benzene	8260B	0.29	J	ug/L	42
019	TMW-20	Aqueous	1,1-Dichloroethane	8260B	0.41	J	ug/L	42
019	TMW-20	Aqueous	1,1-Dichloroethene	8260B	0.55	J	ug/L	42
019	TMW-20	Aqueous	cis-1,2-Dichloroethene	8260B	91		ug/L	42
019	TMW-20	Aqueous	trans-1,2-Dichloroethene	8260B	6.3		ug/L	42
019	TMW-20	Aqueous	Trichloroethene	8260B	22		ug/L	43
019	TMW-20	Aqueous	Vinyl chloride	8260B	0.17	J	ug/L	43
020	TWM-19	Aqueous	cis-1,2-Dichloroethene	8260B	1.7	J	ug/L	44
020	TWM-19	Aqueous	Trichloroethene	8260B	210		ug/L	45

Executive Summary (Continued)

Lot Number: PE21017

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
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(45 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-001
Description: TMW-20-2	Matrix: Solid
Date Sampled: 05/19/2014 1735	% Solids: 86.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/21/2014 2351	JJG		47258	6.45

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	6.0	ug/kg	1
Benzene	71-43-2	8260B	ND		4.5	0.98	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.5	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.5	0.63	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.5	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.9	2.1	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.5	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.5	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.5	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.5	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.5	0.74	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.5	0.89	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.5	0.60	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.5	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.5	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.5	0.76	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.5	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.5	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.5	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.5	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.5	0.65	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.5	0.89	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.5	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.5	0.68	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.5	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.5	0.81	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.5	0.61	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.5	0.73	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.5	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.9	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.5	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.5	0.88	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.5	0.36	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.9	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.5	0.37	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.5	2.3	ug/kg	1
Styrene	100-42-5	8260B	ND		4.5	0.98	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.5	0.42	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.5	0.45	ug/kg	1
Toluene	108-88-3	8260B	ND		4.5	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.5	0.56	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.5	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.5	0.76	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.5	0.71	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-001
Description: TMW-20-2	Matrix: Solid
Date Sampled: 05/19/2014 1735	% Solids: 86.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/21/2014 2351	JJG		47258	6.45

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.5	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.5	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.5	0.77	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.5	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		82	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-002
Description: TMW-20-8	Matrix: Solid
Date Sampled: 05/19/2014 1745	% Solids: 77.6 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0014	JJG		47258	6.31

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	77		20	6.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.1	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.1	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.1	0.72	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.1	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	4.3	J	10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.1	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.1	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.1	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.1	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.1	0.85	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.1	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.1	0.69	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.1	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.1	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.1	0.87	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.1	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.1	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.1	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.1	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.1	0.75	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.1	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.1	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.1	0.78	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.1	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.1	0.93	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.1	0.69	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.1	0.84	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.1	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.1	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.1	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.1	0.41	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.1	0.42	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.1	2.7	ug/kg	1
Styrene	100-42-5	8260B	ND		5.1	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.1	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.1	0.51	ug/kg	1
Toluene	108-88-3	8260B	ND		5.1	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.1	0.64	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.1	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.1	0.87	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.1	0.81	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-002
Description: TMW-20-8	Matrix: Solid
Date Sampled: 05/19/2014 1745	% Solids: 77.6 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0014	JJG		47258	6.31

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.1	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.1	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.1	0.88	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.1	3.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-003
Description: TMW-20-14	Matrix: Solid
Date Sampled: 05/19/2014 1755	% Solids: 84.9 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0037	JJG		47258	6.42

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	6.1	ug/kg	1
Benzene	71-43-2	8260B	ND		4.6	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.6	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.6	0.64	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.6	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.2	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.6	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.6	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.6	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.6	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.6	0.76	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.6	0.92	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.6	0.62	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.6	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.6	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.6	0.78	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.6	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.6	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.6	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.6	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.6	0.67	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.6	0.92	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.6	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.6	0.70	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.6	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.6	0.83	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.6	0.62	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.6	0.75	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.6	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.2	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.6	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.6	0.90	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.6	0.37	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.2	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.6	0.38	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.6	2.4	ug/kg	1
Styrene	100-42-5	8260B	ND		4.6	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.6	0.43	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.6	0.46	ug/kg	1
Toluene	108-88-3	8260B	ND		4.6	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.6	0.58	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.6	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.6	0.78	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.6	0.72	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-003
Description: TMW-20-14	Matrix: Solid
Date Sampled: 05/19/2014 1755	% Solids: 84.9 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0037	JJG		47258	6.42

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.6	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.6	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.6	0.79	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.6	2.7	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-004
Description: B-20-2	Matrix: Solid
Date Sampled: 05/20/2014 1015	% Solids: 92.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0059	JJG		47258	6.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		16	5.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.0	0.88	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.0	1.4	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.0	0.56	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.0	1.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.0	1.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.0	1.0	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.0	1.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.0	1.4	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.0	1.0	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.0	0.67	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.0	0.80	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.0	0.54	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.0	1.2	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.0	1.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.0	0.68	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.0	1.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.0	1.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.0	1.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.0	1.3	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.0	0.59	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.0	0.80	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.0	1.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.0	0.61	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.0	1.2	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.0	0.73	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.0	0.55	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.0	0.66	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.0	1.4	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.0	1.0	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.0	0.18	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.0	0.79	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.0	0.32	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.0	1.2	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.0	0.33	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.0	2.1	ug/kg	1
Styrene	100-42-5	8260B	1.5	J	4.0	0.88	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.0	0.38	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.0	0.40	ug/kg	1
Toluene	108-88-3	8260B	ND		4.0	1.4	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.0	0.51	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.0	1.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.0	0.68	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.0	0.63	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-004
Description: B-20-2	Matrix: Solid
Date Sampled: 05/20/2014 1015	% Solids: 92.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0059	JJG		47258	6.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.0	1.5	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.0	1.2	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.0	0.69	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.0	2.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		82	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-005
Description: B-20-11	Matrix: Solid
Date Sampled: 05/20/2014 1020	% Solids: 84.4 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/22/2014 1334	AAC		47305	5.94

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	73		20	6.7	ug/kg	2
Benzene	71-43-2	8260B	ND		5.0	1.1	ug/kg	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/kg	2
Bromoform	75-25-2	8260B	ND		5.0	0.70	ug/kg	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	1.8	ug/kg	2
2-Butanone (MEK)	78-93-3	8260B	14		10	2.4	ug/kg	2
Carbon disulfide	75-15-0	8260B	ND		5.0	1.3	ug/kg	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	1.8	ug/kg	2
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/kg	2
Chloroethane	75-00-3	8260B	ND		5.0	1.3	ug/kg	2
Chloroform	67-66-3	8260B	ND		5.0	0.83	ug/kg	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	1.0	ug/kg	2
Cyclohexane	110-82-7	8260B	ND		5.0	0.67	ug/kg	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	1.5	ug/kg	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/kg	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.85	ug/kg	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/kg	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/kg	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/kg	2
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	1.6	ug/kg	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.73	ug/kg	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	1.0	ug/kg	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	1.7	ug/kg	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.76	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	1.5	ug/kg	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.91	ug/kg	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.68	ug/kg	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.82	ug/kg	2
Ethylbenzene	100-41-4	8260B	20		5.0	1.7	ug/kg	2
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	0.23	ug/kg	2
Methyl acetate	79-20-9	8260B	ND		5.0	0.98	ug/kg	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/kg	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.41	ug/kg	2
Methylene chloride	75-09-2	8260B	ND		5.0	2.6	ug/kg	2
Styrene	100-42-5	8260B	ND		5.0	1.1	ug/kg	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.47	ug/kg	2
Tetrachloroethene	127-18-4	8260B	0.51	J	5.0	0.50	ug/kg	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/kg	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.63	ug/kg	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/kg	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.85	ug/kg	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.79	ug/kg	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-005
Description: B-20-11	Matrix: Solid
Date Sampled: 05/20/2014 1020	% Solids: 84.4 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/22/2014 1334	AAC		47305	5.94

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	1.9	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	1.5	ug/kg	2
Vinyl chloride	75-01-4	8260B	ND		5.0	0.86	ug/kg	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.9	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		72	47-138
Toluene-d8		90	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-006
Description: B-20-15	Matrix: Solid
Date Sampled: 05/20/2014 1030	% Solids: 81.3 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0145	JJG		47258	6.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	6.1	ug/kg	1
Benzene	71-43-2	8260B	ND		4.5	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.5	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.5	0.64	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.5	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.1	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.5	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.5	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.5	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.5	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.5	0.75	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.5	0.91	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.5	0.61	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.5	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.5	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.5	0.77	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.5	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.5	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.5	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.5	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.5	0.66	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.5	0.91	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.5	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.5	0.69	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.5	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.5	0.83	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.5	0.62	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.5	0.74	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.5	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.1	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.5	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.5	0.89	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.5	0.36	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.1	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.5	0.37	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.5	2.4	ug/kg	1
Styrene	100-42-5	8260B	1.7	J	4.5	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.5	0.43	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.5	0.45	ug/kg	1
Toluene	108-88-3	8260B	ND		4.5	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.5	0.57	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.5	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.5	0.77	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.5	0.72	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-006
Description: B-20-15	Matrix: Solid
Date Sampled: 05/20/2014 1030	% Solids: 81.3 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0145	JJG		47258	6.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.5	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.5	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.5	0.78	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.5	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		99	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-007
Description: B-21-2	Matrix: Solid
Date Sampled: 05/20/2014 1125	% Solids: 90.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0208	JJG		47258	6.35

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	5.9	ug/kg	1
Benzene	71-43-2	8260B	ND		4.4	0.96	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.4	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.4	0.61	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.4	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.8	2.1	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.4	1.1	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.4	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.4	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.4	1.1	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.4	0.73	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.4	0.88	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.4	0.59	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.4	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.4	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.4	0.74	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.4	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.4	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.4	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.4	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.4	0.64	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.4	0.88	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.4	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.4	0.67	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.4	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.4	0.80	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.4	0.60	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.4	0.72	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.4	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.8	1.1	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.4	0.20	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.4	0.86	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.4	0.35	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.8	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.4	0.36	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.4	2.3	ug/kg	1
Styrene	100-42-5	8260B	ND		4.4	0.96	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.4	0.41	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.4	0.44	ug/kg	1
Toluene	108-88-3	8260B	ND		4.4	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.4	0.55	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.4	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.4	0.74	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.4	0.69	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-007
Description: B-21-2	Matrix: Solid
Date Sampled: 05/20/2014 1125	% Solids: 90.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0208	JJG		47258	6.35

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.4	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.4	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.4	0.75	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.4	2.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-008
Description: B-21-9	Matrix: Solid
Date Sampled: 05/20/2014 1135	% Solids: 93.1 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0230	JJG		47258	6.53

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	24		16	5.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.1	0.90	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.1	1.4	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.1	0.58	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.1	1.5	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	2.2	J	8.2	2.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.1	1.1	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.1	1.5	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.1	1.4	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.1	1.1	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.1	0.68	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.1	0.82	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.1	0.55	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.1	1.2	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.1	1.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.1	0.70	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.1	1.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.1	1.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.1	1.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.1	1.3	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.1	0.60	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.1	0.82	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.1	1.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.1	0.62	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.1	1.2	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.1	0.75	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.1	0.56	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.1	0.67	ug/kg	1
Ethylbenzene	100-41-4	8260B	2.6	J	4.1	1.4	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.2	1.1	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.1	0.19	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.1	0.81	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.1	0.33	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.2	1.2	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.1	0.34	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.1	2.1	ug/kg	1
Styrene	100-42-5	8260B	ND		4.1	0.90	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.1	0.39	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.1	0.41	ug/kg	1
Toluene	108-88-3	8260B	ND		4.1	1.4	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.1	0.52	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.1	1.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.1	0.70	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.1	0.65	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-008
Description: B-21-9	Matrix: Solid
Date Sampled: 05/20/2014 1135	% Solids: 93.1 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0230	JJG		47258	6.53

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.1	1.6	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.1	1.2	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.1	0.71	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.1	2.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		81	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-009
Description: B-21-15	Matrix: Solid
Date Sampled: 05/20/2014 1145	% Solids: 80.1 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/22/2014 1357	AAC		47305	6.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		19	6.3	ug/kg	2
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	2
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	2
Bromoform	75-25-2	8260B	ND		4.7	0.66	ug/kg	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	2
2-Butanone (MEK)	78-93-3	8260B	ND		9.4	2.3	ug/kg	2
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	2
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	2
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	2
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	2
Chloroform	67-66-3	8260B	ND		4.7	0.78	ug/kg	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.94	ug/kg	2
Cyclohexane	110-82-7	8260B	ND		4.7	0.63	ug/kg	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	2
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.80	ug/kg	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	2
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	2
1,1-Dichloroethane	75-34-3	8260B	ND		4.7	0.69	ug/kg	2
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.94	ug/kg	2
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.7	0.71	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.7	1.4	ug/kg	2
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.86	ug/kg	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.64	ug/kg	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.77	ug/kg	2
Ethylbenzene	100-41-4	8260B	ND		4.7	1.6	ug/kg	2
2-Hexanone	591-78-6	8260B	ND		9.4	1.2	ug/kg	2
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.22	ug/kg	2
Methyl acetate	79-20-9	8260B	ND		4.7	0.92	ug/kg	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.38	ug/kg	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.4	1.4	ug/kg	2
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.39	ug/kg	2
Methylene chloride	75-09-2	8260B	ND		4.7	2.4	ug/kg	2
Styrene	100-42-5	8260B	2.6	J	4.7	1.0	ug/kg	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.44	ug/kg	2
Tetrachloroethene	127-18-4	8260B	0.50	J	4.7	0.47	ug/kg	2
Toluene	108-88-3	8260B	ND		4.7	1.6	ug/kg	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.59	ug/kg	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.80	ug/kg	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.74	ug/kg	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-009
Description: B-21-15	Matrix: Solid
Date Sampled: 05/20/2014 1145	% Solids: 80.1 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/22/2014 1357	AAC		47305	6.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	6.0		4.7	1.8	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	2
Vinyl chloride	75-01-4	8260B	ND		4.7	0.81	ug/kg	2
Xylenes (total)	1330-20-7	8260B	ND		4.7	2.7	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		93	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-010
Description: B-22-2	Matrix: Solid
Date Sampled: 05/20/2014 1400	% Solids: 92.8 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0317	JJG		47258	6.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		17	5.6	ug/kg	1
Benzene	71-43-2	8260B	ND		4.2	0.92	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.2	1.4	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.2	0.59	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.2	1.5	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.4	2.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.2	1.1	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.2	1.5	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.2	1.4	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.2	1.1	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.2	0.70	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.2	0.84	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.2	0.56	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.2	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.2	1.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.2	0.71	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.2	1.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.2	1.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.2	1.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.2	1.3	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.2	0.61	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.2	0.84	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.2	1.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.2	0.64	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.2	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.2	0.76	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.2	0.57	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.2	0.69	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.2	1.4	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.4	1.1	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.2	0.19	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.2	0.82	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.2	0.34	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.4	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.2	0.34	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.2	2.2	ug/kg	1
Styrene	100-42-5	8260B	ND		4.2	0.92	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.2	0.39	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.2	0.42	ug/kg	1
Toluene	108-88-3	8260B	ND		4.2	1.4	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.2	0.53	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.2	1.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.2	0.71	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.2	0.66	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-010
Description: B-22-2	Matrix: Solid
Date Sampled: 05/20/2014 1400	% Solids: 92.8 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0317	JJG		47258	6.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.2	1.6	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.2	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.2	0.72	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.2	2.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	53-142
Bromofluorobenzene		83	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-011
Description: B-22-8	Matrix: Solid
Date Sampled: 05/20/2014 1410	% Solids: 91.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0404	JJG		47258	5.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	66		19	6.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.68	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	6.3	J	9.7	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	5.3		4.9	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.81	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.97	ug/kg	1
Cyclohexane	110-82-7	8260B	0.94	J	4.9	0.66	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.71	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.97	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.9	0.74	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.89	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.66	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.80	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.9	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.7	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.9	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.95	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.7	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.5	ug/kg	1
Styrene	100-42-5	8260B	ND		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	27		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.77	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-011
Description: B-22-8	Matrix: Solid
Date Sampled: 05/20/2014 1410	% Solids: 91.0 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0404	JJG		47258	5.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.9	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.84	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.9	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		75	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-012
Description: B-22-15	Matrix: Solid
Date Sampled: 05/20/2014 1415	% Solids: 79.4 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0427	JJG		47258	5.95

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		21	7.1	ug/kg	1
Benzene	71-43-2	8260B	ND		5.3	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.3	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.3	0.74	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.3	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.3	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.3	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.3	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.3	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.3	0.88	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.3	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.3	0.71	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.3	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.3	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.3	0.90	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.3	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.3	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.3	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.3	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.3	0.77	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.3	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.3	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.3	0.80	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.3	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.3	0.96	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.3	0.72	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.3	0.87	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.3	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.3	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.3	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.3	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.3	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.3	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.3	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.3	0.50	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.3	0.53	ug/kg	1
Toluene	108-88-3	8260B	ND		5.3	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.3	0.67	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.3	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.3	0.90	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.3	0.84	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-012
Description: B-22-15	Matrix: Solid
Date Sampled: 05/20/2014 1415	% Solids: 79.4 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0427	JJG		47258	5.95

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.3	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.3	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.3	0.91	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.3	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-013
Description: B-23-2	Matrix: Solid
Date Sampled: 05/20/2014 1610	% Solids: 84.5 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0450	JJG		47258	6.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	5.9	ug/kg	1
Benzene	71-43-2	8260B	ND		4.4	0.97	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.4	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.4	0.62	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.4	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.9	2.1	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.4	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.4	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.4	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.4	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.4	0.74	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.4	0.89	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.4	0.60	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.4	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.4	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.4	0.75	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.4	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.4	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.4	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.4	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.4	0.65	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.4	0.89	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.4	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.4	0.67	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.4	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.4	0.81	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.4	0.60	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.4	0.73	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.4	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.9	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.4	0.20	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.4	0.87	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.4	0.35	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.9	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.4	0.36	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.4	2.3	ug/kg	1
Styrene	100-42-5	8260B	4.1	J	4.4	0.97	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.4	0.42	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.4	0.44	ug/kg	1
Toluene	108-88-3	8260B	ND		4.4	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.4	0.56	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.4	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.4	0.75	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.4	0.70	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-013
Description: B-23-2	Matrix: Solid
Date Sampled: 05/20/2014 1610	% Solids: 84.5 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0450	JJG		47258	6.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.4	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.4	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.4	0.76	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.4	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		98	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-014
Description: B-23-8	Matrix: Solid
Date Sampled: 05/20/2014 1630	% Solids: 77.3 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0514	JJG		47258	6.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	33		21	7.0	ug/kg	1
Benzene	71-43-2	8260B	ND		5.2	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.2	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.2	0.73	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.2	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.2	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.2	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.2	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.2	0.86	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.2	0.70	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.2	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	0.88	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	0.76	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.2	0.79	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	0.95	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	0.71	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	0.85	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.2	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.2	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.2	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.2	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.2	2.7	ug/kg	1
Styrene	100-42-5	8260B	7.4		5.2	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	0.49	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.2	0.52	ug/kg	1
Toluene	108-88-3	8260B	ND		5.2	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	0.66	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	0.88	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	0.82	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-014
Description: B-23-8	Matrix: Solid
Date Sampled: 05/20/2014 1630	% Solids: 77.3 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0514	JJG		47258	6.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.2	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.2	0.89	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.2	3.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		97	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-015
Description: B-23-14	Matrix: Solid
Date Sampled: 05/20/2014 1710	% Solids: 79.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0537	JJG		47258	6.44

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	8.9	J	19	6.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.68	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.7	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.9	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.81	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.97	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.9	0.66	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.71	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.97	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.9	0.74	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.89	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.66	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.80	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.9	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.7	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.9	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.95	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.7	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.5	ug/kg	1
Styrene	100-42-5	8260B	11		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.77	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-015
Description: B-23-14	Matrix: Solid
Date Sampled: 05/20/2014 1710	% Solids: 79.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0537	JJG		47258	6.44

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.9	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.84	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.9	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		97	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-016
Description: B-24-4	Matrix: Solid
Date Sampled: 05/20/2014 1845	% Solids: 84.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0600	JJG		47258	6.67

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	41		18	5.9	ug/kg	1
Benzene	71-43-2	8260B	ND		4.4	0.97	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.4	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.4	0.62	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.4	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		8.8	2.1	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.4	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.4	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.4	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.4	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.4	0.73	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.4	0.88	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.4	0.60	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.4	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.4	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.4	0.75	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.4	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.4	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.4	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.4	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.4	0.65	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.4	0.88	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.4	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.4	0.67	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.4	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.4	0.81	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.4	0.60	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.4	0.73	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.4	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.8	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.4	0.20	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.4	0.87	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.4	0.35	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.8	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.4	0.36	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.4	2.3	ug/kg	1
Styrene	100-42-5	8260B	2.4	J	4.4	0.97	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.4	0.42	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.4	0.44	ug/kg	1
Toluene	108-88-3	8260B	ND		4.4	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.4	0.56	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.4	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.4	0.75	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.4	0.70	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-016
Description: B-24-4	Matrix: Solid
Date Sampled: 05/20/2014 1845	% Solids: 84.7 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0600	JJG		47258	6.67

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.4	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.4	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.4	0.76	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.4	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-017
Description: B-24-8	Matrix: Solid
Date Sampled: 05/20/2014 1855	% Solids: 90.6 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0623	JJG		47258	6.95

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	42		16	5.3	ug/kg	1
Benzene	71-43-2	8260B	ND		4.0	0.87	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.0	1.3	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.0	0.56	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.0	1.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	6.7	J	7.9	1.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.0	1.0	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.0	1.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.0	1.3	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.0	1.0	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.0	0.66	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.0	0.79	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.0	0.54	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.0	1.2	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.0	1.3	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.0	0.67	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.0	1.3	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.0	1.3	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.0	1.3	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.0	1.3	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.0	0.58	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.0	0.79	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.0	1.3	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	33		4.0	0.60	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.0	1.2	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.0	0.72	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.0	0.54	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.0	0.65	ug/kg	1
Ethylbenzene	100-41-4	8260B	16		4.0	1.3	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		7.9	1.0	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.0	0.18	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.0	0.78	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.0	0.32	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		7.9	1.2	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.0	0.33	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.0	2.1	ug/kg	1
Styrene	100-42-5	8260B	ND		4.0	0.87	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.0	0.37	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.0	0.40	ug/kg	1
Toluene	108-88-3	8260B	9.8		4.0	1.3	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.0	0.50	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.0	1.3	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.0	0.67	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.0	0.63	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-017
Description: B-24-8	Matrix: Solid
Date Sampled: 05/20/2014 1855	% Solids: 90.6 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0623	JJG		47258	6.95

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	30		4.0	1.5	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.0	1.2	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.0	0.68	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.0	2.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-018
Description: B-24-24	Matrix: Solid
Date Sampled: 05/20/2014 1900	% Solids: 80.9 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0646	JJG		47258	6.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		19	6.3	ug/kg	1
Benzene	71-43-2	8260B	ND		4.7	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.7	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.7	0.66	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.7	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.4	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.7	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.7	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.7	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.7	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.7	0.78	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.7	0.94	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.7	0.64	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.7	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.7	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.7	0.80	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.7	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.7	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.7	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.7	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.7	0.69	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.7	0.94	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.7	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	170		4.7	0.72	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.7	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.7	0.86	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.7	0.64	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.7	0.77	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.7	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.4	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.7	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.7	0.92	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.7	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.4	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.7	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.7	2.5	ug/kg	1
Styrene	100-42-5	8260B	9.0		4.7	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.7	0.44	ug/kg	1
Tetrachloroethene	127-18-4	8260B	0.66	J	4.7	0.47	ug/kg	1
Toluene	108-88-3	8260B	ND		4.7	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.7	0.59	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.7	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.7	0.80	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.7	0.74	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-018
Description: B-24-24	Matrix: Solid
Date Sampled: 05/20/2014 1900	% Solids: 80.9 05/21/2014 2144
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 0646	JJG		47258	6.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	83		4.7	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.7	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.7	0.81	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.7	2.7	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-019
Description: TMW-20	Matrix: Aqueous
Date Sampled: 05/20/2014 1150	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/22/2014 0020	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.29	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.41	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	0.55	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	91		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	6.3		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-019
Description: TMW-20	Matrix: Aqueous
Date Sampled: 05/20/2014 1150	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/22/2014 0020	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	22		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	0.17	J	2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-020
Description: TWM-19	Matrix: Aqueous
Date Sampled: 05/20/2014 1505	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	05/22/2014 0707	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.7	J	25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-020
Description: TWM-19	Matrix: Aqueous
Date Sampled: 05/20/2014 1505	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	05/22/2014 0707	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	210		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-021
Description: TB-01-052014	Matrix: Aqueous
Date Sampled: 05/20/2014	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/21/2014 2358	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE21017-021
Description: TB-01-052014	Matrix: Aqueous
Date Sampled: 05/20/2014	
Date Received: 05/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/21/2014 2358	PMM2		47256

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47256-001

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	05/21/2014 2335
Benzene	ND		1	5.0	0.20	ug/L	05/21/2014 2335
Bromodichloromethane	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Bromoform	ND		1	5.0	0.40	ug/L	05/21/2014 2335
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	05/21/2014 2335
2-Butanone (MEK)	ND		1	10	1.8	ug/L	05/21/2014 2335
Carbon disulfide	ND		1	5.0	0.30	ug/L	05/21/2014 2335
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	05/21/2014 2335
Chlorobenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Chloroethane	ND		1	5.0	0.50	ug/L	05/21/2014 2335
Chloroform	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	05/21/2014 2335
Cyclohexane	ND		1	5.0	0.98	ug/L	05/21/2014 2335
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	05/21/2014 2335
Dibromochloromethane	ND		1	5.0	1.7	ug/L	05/21/2014 2335
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	05/21/2014 2335
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	05/21/2014 2335
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	05/21/2014 2335
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	05/21/2014 2335
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	05/21/2014 2335
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	05/21/2014 2335
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	05/21/2014 2335
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	05/21/2014 2335
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/21/2014 2335
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/21/2014 2335
Ethylbenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
2-Hexanone	ND		1	10	1.0	ug/L	05/21/2014 2335
Isopropylbenzene	ND		1	5.0	1.0	ug/L	05/21/2014 2335
Methyl acetate	ND		1	5.0	0.72	ug/L	05/21/2014 2335
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	05/21/2014 2335
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	05/21/2014 2335
Methylcyclohexane	ND		1	5.0	0.95	ug/L	05/21/2014 2335
Methylene chloride	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Styrene	ND		1	5.0	0.10	ug/L	05/21/2014 2335
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	05/21/2014 2335
Tetrachloroethene	ND		1	5.0	0.40	ug/L	05/21/2014 2335
Toluene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	05/21/2014 2335
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	05/21/2014 2335
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	05/21/2014 2335
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	05/21/2014 2335

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47256-001

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	05/21/2014 2335
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	05/21/2014 2335
Vinyl chloride	ND		1	2.0	0.10	ug/L	05/21/2014 2335
Xylenes (total)	ND		1	5.0	1.7	ug/L	05/21/2014 2335
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		105	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47256-002

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	121	60-140	05/21/2014 2204
Benzene	50	51		1	102	70-130	05/21/2014 2204
Bromodichloromethane	50	49		1	99	70-130	05/21/2014 2204
Bromoform	50	48		1	95	70-130	05/21/2014 2204
Bromomethane (Methyl bromide)	50	43		1	86	60-140	05/21/2014 2204
2-Butanone (MEK)	100	110		1	112	60-140	05/21/2014 2204
Carbon disulfide	50	48		1	96	60-140	05/21/2014 2204
Carbon tetrachloride	50	49		1	99	70-130	05/21/2014 2204
Chlorobenzene	50	48		1	97	70-130	05/21/2014 2204
Chloroethane	50	49		1	98	42-163	05/21/2014 2204
Chloroform	50	51		1	101	70-130	05/21/2014 2204
Chloromethane (Methyl chloride)	50	48		1	96	60-140	05/21/2014 2204
Cyclohexane	50	52		1	104	70-130	05/21/2014 2204
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	104	70-130	05/21/2014 2204
Dibromochloromethane	50	49		1	97	70-130	05/21/2014 2204
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	05/21/2014 2204
1,4-Dichlorobenzene	50	47		1	94	70-130	05/21/2014 2204
1,3-Dichlorobenzene	50	48		1	95	70-130	05/21/2014 2204
1,2-Dichlorobenzene	50	48		1	96	70-130	05/21/2014 2204
Dichlorodifluoromethane	50	44		1	88	60-140	05/21/2014 2204
1,1-Dichloroethane	50	52		1	104	70-130	05/21/2014 2204
1,2-Dichloroethane	50	52		1	105	70-130	05/21/2014 2204
cis-1,2-Dichloroethene	50	51		1	102	70-130	05/21/2014 2204
1,1-Dichloroethene	50	49		1	98	70-130	05/21/2014 2204
trans-1,2-Dichloroethene	50	51		1	102	70-130	05/21/2014 2204
1,2-Dichloropropane	50	52		1	104	70-130	05/21/2014 2204
cis-1,3-Dichloropropene	50	53		1	106	70-130	05/21/2014 2204
trans-1,3-Dichloropropene	50	52		1	104	70-130	05/21/2014 2204
Ethylbenzene	50	49		1	98	70-130	05/21/2014 2204
2-Hexanone	100	110		1	109	60-140	05/21/2014 2204
Isopropylbenzene	50	50		1	101	70-130	05/21/2014 2204
Methyl acetate	50	59		1	118	70-130	05/21/2014 2204
Methyl tertiary butyl ether (MTBE)	50	53		1	105	70-130	05/21/2014 2204
4-Methyl-2-pentanone	100	110		1	109	60-140	05/21/2014 2204
Methylcyclohexane	50	50		1	99	70-130	05/21/2014 2204
Methylene chloride	50	47		1	94	70-130	05/21/2014 2204
Styrene	50	49		1	97	70-130	05/21/2014 2204
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	05/21/2014 2204
Tetrachloroethene	50	46		1	91	70-130	05/21/2014 2204
Toluene	50	51		1	102	70-130	05/21/2014 2204
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	70-130	05/21/2014 2204
1,2,4-Trichlorobenzene	50	47		1	94	70-130	05/21/2014 2204
1,1,1-Trichloroethane	50	50		1	99	70-130	05/21/2014 2204
1,1,2-Trichloroethane	50	49		1	98	70-130	05/21/2014 2204

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47256-002

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	97	70-130	05/21/2014 2204
Trichlorofluoromethane	50	52		1	104	70-130	05/21/2014 2204
Vinyl chloride	50	47		1	95	70-130	05/21/2014 2204
Xylenes (total)	100	98		1	98	70-130	05/21/2014 2204
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		100	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		107	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47256-003

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	113	6.1	60-140	20	05/21/2014 2227
Benzene	50	51		1	101	1.3	70-130	20	05/21/2014 2227
Bromodichloromethane	50	49		1	98	0.73	70-130	20	05/21/2014 2227
Bromoform	50	48		1	95	0.12	70-130	20	05/21/2014 2227
Bromomethane (Methyl bromide)	50	42		1	84	1.9	60-140	20	05/21/2014 2227
2-Butanone (MEK)	100	110		1	112	0.59	60-140	20	05/21/2014 2227
Carbon disulfide	50	49		1	97	1.8	60-140	20	05/21/2014 2227
Carbon tetrachloride	50	51		1	102	3.0	70-130	20	05/21/2014 2227
Chlorobenzene	50	49		1	97	0.81	70-130	20	05/21/2014 2227
Chloroethane	50	51		1	101	3.1	42-163	20	05/21/2014 2227
Chloroform	50	50		1	101	0.92	70-130	20	05/21/2014 2227
Chloromethane (Methyl chloride)	50	48		1	96	0.11	60-140	20	05/21/2014 2227
Cyclohexane	50	57		1	114	9.1	70-130	20	05/21/2014 2227
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	1.3	70-130	20	05/21/2014 2227
Dibromochloromethane	50	49		1	98	0.73	70-130	20	05/21/2014 2227
1,2-Dibromoethane (EDB)	50	50		1	100	1.7	70-130	20	05/21/2014 2227
1,4-Dichlorobenzene	50	48		1	96	2.6	70-130	20	05/21/2014 2227
1,3-Dichlorobenzene	50	49		1	98	2.8	70-130	20	05/21/2014 2227
1,2-Dichlorobenzene	50	49		1	97	1.0	70-130	20	05/21/2014 2227
Dichlorodifluoromethane	50	45		1	90	2.4	60-140	20	05/21/2014 2227
1,1-Dichloroethane	50	52		1	104	0.21	70-130	20	05/21/2014 2227
1,2-Dichloroethane	50	51		1	103	2.1	70-130	20	05/21/2014 2227
cis-1,2-Dichloroethene	50	52		1	103	1.3	70-130	20	05/21/2014 2227
1,1-Dichloroethene	50	50		1	99	1.1	70-130	20	05/21/2014 2227
trans-1,2-Dichloroethene	50	51		1	103	0.58	70-130	20	05/21/2014 2227
1,2-Dichloropropane	50	51		1	103	1.8	70-130	20	05/21/2014 2227
cis-1,3-Dichloropropene	50	52		1	104	1.3	70-130	20	05/21/2014 2227
trans-1,3-Dichloropropene	50	53		1	105	1.5	70-130	20	05/21/2014 2227
Ethylbenzene	50	49		1	98	0.37	70-130	20	05/21/2014 2227
2-Hexanone	100	110		1	109	0.082	60-140	20	05/21/2014 2227
Isopropylbenzene	50	52		1	103	2.2	70-130	20	05/21/2014 2227
Methyl acetate	50	55		1	110	6.9	70-130	20	05/21/2014 2227
Methyl tertiary butyl ether (MTBE)	50	51		1	103	2.3	70-130	20	05/21/2014 2227
4-Methyl-2-pentanone	100	110		1	106	2.5	60-140	20	05/21/2014 2227
Methylcyclohexane	50	51		1	102	2.7	70-130	20	05/21/2014 2227
Methylene chloride	50	47		1	94	0.16	70-130	20	05/21/2014 2227
Styrene	50	49		1	98	1.0	70-130	20	05/21/2014 2227
1,1,2,2-Tetrachloroethane	50	53		1	105	1.9	70-130	20	05/21/2014 2227
Tetrachloroethene	50	47		1	93	2.1	70-130	20	05/21/2014 2227
Toluene	50	50		1	101	1.5	70-130	20	05/21/2014 2227
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	1.6	70-130	20	05/21/2014 2227
1,2,4-Trichlorobenzene	50	47		1	94	0.15	70-130	20	05/21/2014 2227
1,1,1-Trichloroethane	50	50		1	100	0.94	70-130	20	05/21/2014 2227
1,1,2-Trichloroethane	50	49		1	99	0.86	70-130	20	05/21/2014 2227

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47256-003

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	48		1	95	1.5	70-130	20	05/21/2014 2227
Trichlorofluoromethane	50	54		1	108	3.8	70-130	20	05/21/2014 2227
Vinyl chloride	50	47		1	93	1.6	70-130	20	05/21/2014 2227
Xylenes (total)	100	99		1	99	1.1	70-130	20	05/21/2014 2227
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		100	70-130						
1,2-Dichloroethane-d4		99	70-130						
Toluene-d8		105	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE21017-020MS

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	600		5	121	60-140	05/22/2014 0729
Benzene	ND	250	280		5	113	70-130	05/22/2014 0729
Bromodichloromethane	ND	250	260		5	106	71-143	05/22/2014 0729
Bromoform	ND	250	240		5	98	65-131	05/22/2014 0729
Bromomethane (Methyl bromide)	ND	250	260		5	105	36-168	05/22/2014 0729
2-Butanone (MEK)	ND	500	600		5	119	60-140	05/22/2014 0729
Carbon disulfide	ND	250	290		5	117	60-140	05/22/2014 0729
Carbon tetrachloride	ND	250	280		5	113	37-166	05/22/2014 0729
Chlorobenzene	ND	250	260		5	105	78-129	05/22/2014 0729
Chloroethane	ND	250	300		5	122	60-140	05/22/2014 0729
Chloroform	ND	250	280		5	111	63-123	05/22/2014 0729
Chloromethane (Methyl chloride)	ND	250	300		5	119	20-158	05/22/2014 0729
Cyclohexane	ND	250	320		5	127	70-130	05/22/2014 0729
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	260		5	106	70-130	05/22/2014 0729
Dibromochloromethane	ND	250	250		5	101	74-134	05/22/2014 0729
1,2-Dibromoethane (EDB)	ND	250	260		5	106	70-130	05/22/2014 0729
1,2-Dichlorobenzene	ND	250	260		5	103	70-130	05/22/2014 0729
1,3-Dichlorobenzene	ND	250	260		5	104	70-130	05/22/2014 0729
1,4-Dichlorobenzene	ND	250	260		5	103	70-130	05/22/2014 0729
Dichlorodifluoromethane	ND	250	290		5	117	10-158	05/22/2014 0729
1,1-Dichloroethane	ND	250	290		5	116	69-132	05/22/2014 0729
1,2-Dichloroethane	ND	250	280		5	111	70-130	05/22/2014 0729
1,1-Dichloroethene	ND	250	290		5	117	50-132	05/22/2014 0729
cis-1,2-Dichloroethene	1.7	250	290		5	114	70-130	05/22/2014 0729
trans-1,2-Dichloroethene	ND	250	300		5	118	70-130	05/22/2014 0729
1,2-Dichloropropane	ND	250	290		5	115	71-126	05/22/2014 0729
cis-1,3-Dichloropropene	ND	250	280		5	111	69-130	05/22/2014 0729
trans-1,3-Dichloropropene	ND	250	270		5	107	73-131	05/22/2014 0729
Ethylbenzene	ND	250	270		5	107	70-130	05/22/2014 0729
2-Hexanone	ND	500	560		5	112	60-140	05/22/2014 0729
Isopropylbenzene	ND	250	280		5	113	70-130	05/22/2014 0729
Methyl acetate	ND	250	310		5	122	15-128	05/22/2014 0729
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	109	70-130	05/22/2014 0729
4-Methyl-2-pentanone	ND	500	560		5	112	60-140	05/22/2014 0729
Methylcyclohexane	ND	250	280		5	111	70-130	05/22/2014 0729
Methylene chloride	ND	250	260		5	106	69-129	05/22/2014 0729
Styrene	ND	250	260		5	106	70-130	05/22/2014 0729
1,1,2,2-Tetrachloroethane	ND	250	280		5	112	60-155	05/22/2014 0729
Tetrachloroethene	ND	250	250		5	102	70-130	05/22/2014 0729
Toluene	ND	250	290		5	114	70-130	05/22/2014 0729
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	340	N	5	134	70-130	05/22/2014 0729
1,2,4-Trichlorobenzene	ND	250	250		5	101	70-130	05/22/2014 0729
1,1,1-Trichloroethane	ND	250	280		5	112	77-132	05/22/2014 0729
1,1,2-Trichloroethane	ND	250	260		5	104	77-132	05/22/2014 0729

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE21017-020MS

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	210	250	480		5	107	73-124	05/22/2014 0729
Trichlorofluoromethane	ND	250	310		5	123	60-140	05/22/2014 0729
Vinyl chloride	ND	250	300		5	120	29-159	05/22/2014 0729
Xylenes (total)	ND	500	530		5	107	70-130	05/22/2014 0729
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		100	70-130					
Bromofluorobenzene		100	70-130					
Toluene-d8		107	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PE21017-020MD

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	600		5	120	1.0	60-140	20	05/22/2014 0751
Benzene	ND	250	270		5	110	3.4	70-130	20	05/22/2014 0751
Bromodichloromethane	ND	250	260		5	103	2.3	71-143	20	05/22/2014 0751
Bromoform	ND	250	240		5	98	0.13	65-131	20	05/22/2014 0751
Bromomethane (Methyl bromide)	ND	250	250		5	102	3.0	36-168	20	05/22/2014 0751
2-Butanone (MEK)	ND	500	580		5	117	2.4	60-140	20	05/22/2014 0751
Carbon disulfide	ND	250	290		5	114	2.6	60-140	20	05/22/2014 0751
Carbon tetrachloride	ND	250	270		5	110	3.2	37-166	20	05/22/2014 0751
Chlorobenzene	ND	250	260		5	104	0.92	78-129	20	05/22/2014 0751
Chloroethane	ND	250	290		5	117	4.5	60-140	20	05/22/2014 0751
Chloroform	ND	250	270		5	110	1.5	63-123	20	05/22/2014 0751
Chloromethane (Methyl chloride)	ND	250	280		5	111	7.2	20-158	20	05/22/2014 0751
Cyclohexane	ND	250	300		5	121	4.7	70-130	20	05/22/2014 0751
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	250		5	101	4.4	70-130	20	05/22/2014 0751
Dibromochloromethane	ND	250	250		5	102	0.15	74-134	20	05/22/2014 0751
1,2-Dibromoethane (EDB)	ND	250	260		5	104	1.3	70-130	20	05/22/2014 0751
1,2-Dichlorobenzene	ND	250	250		5	99	3.4	70-130	20	05/22/2014 0751
1,3-Dichlorobenzene	ND	250	250		5	100	4.1	70-130	20	05/22/2014 0751
1,4-Dichlorobenzene	ND	250	250		5	99	3.7	70-130	20	05/22/2014 0751
Dichlorodifluoromethane	ND	250	280		5	114	3.2	10-158	20	05/22/2014 0751
1,1-Dichloroethane	ND	250	280		5	112	3.2	69-132	20	05/22/2014 0751
1,2-Dichloroethane	ND	250	270		5	107	3.6	70-130	20	05/22/2014 0751
1,1-Dichloroethene	ND	250	280		5	114	2.4	50-132	20	05/22/2014 0751
cis-1,2-Dichloroethene	1.7	250	280		5	111	2.3	70-130	20	05/22/2014 0751
trans-1,2-Dichloroethene	ND	250	280		5	114	3.9	70-130	20	05/22/2014 0751
1,2-Dichloropropane	ND	250	270		5	110	4.4	71-126	20	05/22/2014 0751
cis-1,3-Dichloropropene	ND	250	270		5	110	1.5	69-130	20	05/22/2014 0751
trans-1,3-Dichloropropene	ND	250	270		5	107	0.23	73-131	20	05/22/2014 0751
Ethylbenzene	ND	250	270		5	107	0.67	70-130	20	05/22/2014 0751
2-Hexanone	ND	500	550		5	111	1.4	60-140	20	05/22/2014 0751
Isopropylbenzene	ND	250	270		5	109	4.2	70-130	20	05/22/2014 0751
Methyl acetate	ND	250	290		5	117	4.4	15-128	20	05/22/2014 0751
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	107	1.7	70-130	20	05/22/2014 0751
4-Methyl-2-pentanone	ND	500	540		5	109	3.3	60-140	20	05/22/2014 0751
Methylcyclohexane	ND	250	270		5	109	1.4	70-130	20	05/22/2014 0751
Methylene chloride	ND	250	260		5	103	2.3	69-129	20	05/22/2014 0751
Styrene	ND	250	260		5	105	0.19	70-130	20	05/22/2014 0751
1,1,2,2-Tetrachloroethane	ND	250	270		5	108	3.3	60-155	20	05/22/2014 0751
Tetrachloroethene	ND	250	250		5	101	0.90	70-130	20	05/22/2014 0751
Toluene	ND	250	280		5	110	3.3	70-130	20	05/22/2014 0751
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	330	N	5	131	2.6	70-130	20	05/22/2014 0751
1,2,4-Trichlorobenzene	ND	250	240		5	96	5.7	70-130	20	05/22/2014 0751
1,1,1-Trichloroethane	ND	250	280		5	110	2.0	77-132	20	05/22/2014 0751
1,1,2-Trichloroethane	ND	250	260		5	104	0.16	77-132	20	05/22/2014 0751

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PE21017-020MD

Matrix: Aqueous

Batch: 47256

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Trichloroethene	210	250	460		5	99	4.2	73-124	20	05/22/2014 0751	
Trichlorofluoromethane	ND	250	310		5	123	0.021	60-140	20	05/22/2014 0751	
Vinyl chloride	ND	250	280		5	113	5.5	29-159	20	05/22/2014 0751	
Xylenes (total)	ND	500	530		5	106	0.80	70-130	20	05/22/2014 0751	
Surrogate	Q	% Rec	Acceptance Limit								
1,2-Dichloroethane-d4		97	70-130								
Bromofluorobenzene		99	70-130								
Toluene-d8		105	70-130								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47258-001

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/21/2014 2323
Benzene	ND		1	5.0	1.1	ug/kg	05/21/2014 2323
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
Bromoform	ND		1	5.0	0.70	ug/kg	05/21/2014 2323
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/21/2014 2323
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/21/2014 2323
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/21/2014 2323
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/21/2014 2323
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
Chloroethane	ND		1	5.0	1.3	ug/kg	05/21/2014 2323
Chloroform	ND		1	5.0	0.83	ug/kg	05/21/2014 2323
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/21/2014 2323
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/21/2014 2323
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/21/2014 2323
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/21/2014 2323
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/21/2014 2323
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/21/2014 2323
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/21/2014 2323
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/21/2014 2323
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/21/2014 2323
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/21/2014 2323
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/21/2014 2323
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/21/2014 2323
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
2-Hexanone	ND		1	10	1.3	ug/kg	05/21/2014 2323
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/21/2014 2323
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/21/2014 2323
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/21/2014 2323
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/21/2014 2323
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/21/2014 2323
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/21/2014 2323
Styrene	ND		1	5.0	1.1	ug/kg	05/21/2014 2323
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/21/2014 2323
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/21/2014 2323
Toluene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/21/2014 2323
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/21/2014 2323
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/21/2014 2323
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/21/2014 2323

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47258-001

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/21/2014 2323
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/21/2014 2323
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/21/2014 2323
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/21/2014 2323
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		87	47-138				
1,2-Dichloroethane-d4		91	53-142				
Toluene-d8		94	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47258-002

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	112	60-140	05/21/2014 2150
Benzene	50	45		1	91	69-123	05/21/2014 2150
Bromodichloromethane	50	46		1	92	69-121	05/21/2014 2150
Bromoform	50	44		1	89	61-119	05/21/2014 2150
Bromomethane (Methyl bromide)	50	42		1	84	10-168	05/21/2014 2150
2-Butanone (MEK)	100	110		1	107	57-148	05/21/2014 2150
Carbon disulfide	50	40		1	81	58-122	05/21/2014 2150
Carbon tetrachloride	50	45		1	89	58-136	05/21/2014 2150
Chlorobenzene	50	44		1	89	59-129	05/21/2014 2150
Chloroethane	50	42		1	84	42-163	05/21/2014 2150
Chloroform	50	46		1	93	71-125	05/21/2014 2150
Chloromethane (Methyl chloride)	50	41		1	83	34-134	05/21/2014 2150
Cyclohexane	50	43		1	87	53-139	05/21/2014 2150
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	89	55-125	05/21/2014 2150
Dibromochloromethane	50	45		1	89	66-119	05/21/2014 2150
1,2-Dibromoethane (EDB)	50	45		1	90	74-124	05/21/2014 2150
1,4-Dichlorobenzene	50	44		1	89	52-133	05/21/2014 2150
1,3-Dichlorobenzene	50	45		1	89	51-134	05/21/2014 2150
1,2-Dichlorobenzene	50	45		1	91	57-131	05/21/2014 2150
Dichlorodifluoromethane	50	38		1	76	10-157	05/21/2014 2150
1,2-Dichloroethane	50	46		1	91	67-129	05/21/2014 2150
1,1-Dichloroethane	50	45		1	91	71-127	05/21/2014 2150
trans-1,2-Dichloroethene	50	45		1	91	68-131	05/21/2014 2150
cis-1,2-Dichloroethene	50	46		1	93	70-122	05/21/2014 2150
1,1-Dichloroethene	50	43		1	86	69-138	05/21/2014 2150
1,2-Dichloropropane	50	46		1	91	72-124	05/21/2014 2150
trans-1,3-Dichloropropene	50	45		1	90	70-124	05/21/2014 2150
cis-1,3-Dichloropropene	50	46		1	92	70-126	05/21/2014 2150
Ethylbenzene	50	44		1	89	59-128	05/21/2014 2150
2-Hexanone	100	99		1	99	54-137	05/21/2014 2150
Isopropylbenzene	50	45		1	89	50-136	05/21/2014 2150
Methyl acetate	50	52		1	105	59-137	05/21/2014 2150
Methyl tertiary butyl ether (MTBE)	50	47		1	95	70-130	05/21/2014 2150
4-Methyl-2-pentanone	100	100		1	100	60-134	05/21/2014 2150
Methylcyclohexane	50	43		1	86	41-144	05/21/2014 2150
Methylene chloride	50	43		1	86	70-130	05/21/2014 2150
Styrene	50	45		1	89	54-136	05/21/2014 2150
1,1,2,2-Tetrachloroethane	50	47		1	94	69-132	05/21/2014 2150
Tetrachloroethene	50	44		1	89	45-150	05/21/2014 2150
Toluene	50	45		1	91	61-129	05/21/2014 2150
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	49-136	05/21/2014 2150
1,2,4-Trichlorobenzene	50	44		1	89	34-145	05/21/2014 2150
1,1,2-Trichloroethane	50	44		1	87	55-128	05/21/2014 2150
1,1,1-Trichloroethane	50	45		1	91	63-128	05/21/2014 2150

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47258-002

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	62-126	05/21/2014 2150
Trichlorofluoromethane	50	42		1	84	45-138	05/21/2014 2150
Vinyl chloride	50	42		1	84	42-132	05/21/2014 2150
Xylenes (total)	100	90		1	90	58-128	05/21/2014 2150
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		91	47-138				
1,2-Dichloroethane-d4		94	53-142				
Toluene-d8		98	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47258-003

Batch: 47258

Matrix: Solid

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	118	5.2	60-140	20	05/21/2014 2213
Benzene	50	45		1	90	0.63	69-123	20	05/21/2014 2213
Bromodichloromethane	50	45		1	90	1.5	69-121	20	05/21/2014 2213
Bromoform	50	45		1	90	0.90	61-119	20	05/21/2014 2213
Bromomethane (Methyl bromide)	50	40		1	80	4.8	10-168	20	05/21/2014 2213
2-Butanone (MEK)	100	110		1	108	1.6	57-148	20	05/21/2014 2213
Carbon disulfide	50	38		1	76	5.6	58-122	20	05/21/2014 2213
Carbon tetrachloride	50	42		1	85	5.2	58-136	20	05/21/2014 2213
Chlorobenzene	50	43		1	86	3.1	59-129	20	05/21/2014 2213
Chloroethane	50	41		1	81	3.4	42-163	20	05/21/2014 2213
Chloroform	50	43		1	86	7.3	71-125	20	05/21/2014 2213
Chloromethane (Methyl chloride)	50	39		1	78	5.9	34-134	20	05/21/2014 2213
Cyclohexane	50	41		1	83	4.5	53-139	20	05/21/2014 2213
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	6.4	55-125	20	05/21/2014 2213
Dibromochloromethane	50	44		1	89	0.55	66-119	20	05/21/2014 2213
1,2-Dibromoethane (EDB)	50	45		1	91	0.50	74-124	20	05/21/2014 2213
1,4-Dichlorobenzene	50	44		1	88	1.0	52-133	20	05/21/2014 2213
1,3-Dichlorobenzene	50	43		1	85	4.2	51-134	20	05/21/2014 2213
1,2-Dichlorobenzene	50	44		1	88	2.9	57-131	20	05/21/2014 2213
Dichlorodifluoromethane	50	36		1	72	5.1	10-157	20	05/21/2014 2213
1,2-Dichloroethane	50	46		1	91	0.11	67-129	20	05/21/2014 2213
1,1-Dichloroethane	50	44		1	88	2.5	71-127	20	05/21/2014 2213
trans-1,2-Dichloroethene	50	42		1	84	8.0	68-131	20	05/21/2014 2213
cis-1,2-Dichloroethene	50	44		1	88	5.3	70-122	20	05/21/2014 2213
1,1-Dichloroethene	50	40		1	80	7.1	69-138	20	05/21/2014 2213
1,2-Dichloropropane	50	45		1	90	1.2	72-124	20	05/21/2014 2213
trans-1,3-Dichloropropene	50	46		1	92	2.0	70-124	20	05/21/2014 2213
cis-1,3-Dichloropropene	50	45		1	90	2.5	70-126	20	05/21/2014 2213
Ethylbenzene	50	43		1	86	3.3	59-128	20	05/21/2014 2213
2-Hexanone	100	110		1	110	10	54-137	20	05/21/2014 2213
Isopropylbenzene	50	44		1	88	1.1	50-136	20	05/21/2014 2213
Methyl acetate	50	51		1	102	2.8	59-137	20	05/21/2014 2213
Methyl tertiary butyl ether (MTBE)	50	46		1	91	3.7	70-130	20	05/21/2014 2213
4-Methyl-2-pentanone	100	100		1	104	3.8	60-134	20	05/21/2014 2213
Methylcyclohexane	50	41		1	82	3.9	41-144	20	05/21/2014 2213
Methylene chloride	50	42		1	84	2.0	70-130	20	05/21/2014 2213
Styrene	50	46		1	92	3.1	54-136	20	05/21/2014 2213
1,1,2,2-Tetrachloroethane	50	47		1	94	0.45	69-132	20	05/21/2014 2213
Tetrachloroethene	50	41		1	82	7.6	45-150	20	05/21/2014 2213
Toluene	50	43		1	87	4.7	61-129	20	05/21/2014 2213
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	43		1	85	5.7	49-136	20	05/21/2014 2213
1,2,4-Trichlorobenzene	50	43		1	87	2.6	34-145	20	05/21/2014 2213
1,1,2-Trichloroethane	50	44		1	88	0.68	55-128	20	05/21/2014 2213
1,1,1-Trichloroethane	50	43		1	86	4.9	63-128	20	05/21/2014 2213

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47258-003

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	44		1	88	2.3	62-126	20	05/21/2014 2213
Trichlorofluoromethane	50	40		1	79	5.8	45-138	20	05/21/2014 2213
Vinyl chloride	50	39		1	78	7.3	42-132	20	05/21/2014 2213
Xylenes (total)	100	89		1	89	1.1	58-128	20	05/21/2014 2213
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		91	47-138						
1,2-Dichloroethane-d4		93	53-142						
Toluene-d8		96	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE21017-001MS

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	89	87		1	98	60-140	05/22/2014 0733
Benzene	ND	45	45		1	102	69-123	05/22/2014 0733
Bromodichloromethane	ND	45	44		1	98	69-121	05/22/2014 0733
Bromoform	ND	45	40		1	89	61-119	05/22/2014 0733
Bromomethane (Methyl bromide)	ND	45	46		1	104	35-144	05/22/2014 0733
2-Butanone (MEK)	ND	89	88		1	99	57-148	05/22/2014 0733
Carbon disulfide	ND	45	45		1	102	58-122	05/22/2014 0733
Carbon tetrachloride	ND	45	48		1	108	58-136	05/22/2014 0733
Chlorobenzene	ND	45	43		1	97	59-129	05/22/2014 0733
Chloroethane	ND	45	50		1	111	50-132	05/22/2014 0733
Chloroform	ND	45	46		1	103	71-125	05/22/2014 0733
Chloromethane (Methyl chloride)	ND	45	49		1	110	34-134	05/22/2014 0733
Cyclohexane	ND	45	47		1	107	53-139	05/22/2014 0733
1,2-Dibromo-3-chloropropane (DBCP)	ND	45	41		1	93	55-125	05/22/2014 0733
Dibromochloromethane	ND	45	41		1	92	66-119	05/22/2014 0733
1,2-Dibromoethane (EDB)	ND	45	41		1	91	74-124	05/22/2014 0733
1,2-Dichlorobenzene	ND	45	40		1	90	57-131	05/22/2014 0733
1,3-Dichlorobenzene	ND	45	39		1	89	51-134	05/22/2014 0733
1,4-Dichlorobenzene	ND	45	39		1	88	52-133	05/22/2014 0733
Dichlorodifluoromethane	ND	45	52		1	118	10-157	05/22/2014 0733
1,1-Dichloroethane	ND	45	47		1	105	71-127	05/22/2014 0733
1,2-Dichloroethane	ND	45	43		1	97	67-129	05/22/2014 0733
1,1-Dichloroethene	ND	45	48		1	107	69-138	05/22/2014 0733
cis-1,2-Dichloroethene	ND	45	46		1	102	70-122	05/22/2014 0733
trans-1,2-Dichloroethene	ND	45	47		1	107	68-131	05/22/2014 0733
1,2-Dichloropropane	ND	45	44		1	99	72-124	05/22/2014 0733
cis-1,3-Dichloropropene	ND	45	42		1	94	70-126	05/22/2014 0733
trans-1,3-Dichloropropene	ND	45	41		1	92	70-124	05/22/2014 0733
Ethylbenzene	ND	45	43		1	97	59-128	05/22/2014 0733
2-Hexanone	ND	89	79		1	88	54-137	05/22/2014 0733
Isopropylbenzene	ND	45	46		1	103	50-136	05/22/2014 0733
Methyl acetate	ND	45	62	N	1	140	59-137	05/22/2014 0733
Methyl tertiary butyl ether (MTBE)	ND	45	42		1	94	70-130	05/22/2014 0733
4-Methyl-2-pentanone	ND	89	87		1	97	60-134	05/22/2014 0733
Methylcyclohexane	ND	45	46		1	103	41-144	05/22/2014 0733
Methylene chloride	ND	45	45		1	102	77-129	05/22/2014 0733
Styrene	ND	45	42		1	95	54-136	05/22/2014 0733
1,1,2,2-Tetrachloroethane	ND	45	45		1	100	69-132	05/22/2014 0733
Tetrachloroethene	ND	45	44		1	99	70-130	05/22/2014 0733
Toluene	ND	45	44		1	99	61-129	05/22/2014 0733
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	45	56		1	125	49-136	05/22/2014 0733
1,2,4-Trichlorobenzene	ND	45	32		1	73	34-145	05/22/2014 0733
1,1,1-Trichloroethane	ND	45	48		1	108	63-128	05/22/2014 0733
1,1,2-Trichloroethane	ND	45	40		1	89	55-128	05/22/2014 0733

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE21017-001MS

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	45	45		1	100	62-126	05/22/2014 0733
Trichlorofluoromethane	ND	45	48		1	108	45-138	05/22/2014 0733
Vinyl chloride	ND	45	51		1	113	42-132	05/22/2014 0733
Xylenes (total)	ND	89	86		1	96	58-128	05/22/2014 0733
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		86	53-142					
Bromofluorobenzene		87	47-138					
Toluene-d8		95	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE21017-002DU

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	77	110	+	1	33	20	05/22/2014 0710
Benzene	ND	ND		1	0.00	20	05/22/2014 0710
Bromodichloromethane	ND	ND		1	0.00	20	05/22/2014 0710
Bromoform	ND	ND		1	0.00	20	05/22/2014 0710
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	05/22/2014 0710
2-Butanone (MEK)	4.3	6.5	+	1	40	20	05/22/2014 0710
Carbon disulfide	ND	ND		1	0.00	20	05/22/2014 0710
Carbon tetrachloride	ND	ND		1	0.00	20	05/22/2014 0710
Chlorobenzene	ND	ND		1	0.00	20	05/22/2014 0710
Chloroethane	ND	ND		1	0.00	20	05/22/2014 0710
Chloroform	ND	ND		1	0.00	20	05/22/2014 0710
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	05/22/2014 0710
Cyclohexane	ND	ND		1	0.00	20	05/22/2014 0710
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	05/22/2014 0710
Dibromochloromethane	ND	ND		1	0.00	20	05/22/2014 0710
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	05/22/2014 0710
1,2-Dichlorobenzene	ND	ND		1	0.00	20	05/22/2014 0710
1,3-Dichlorobenzene	ND	ND		1	0.00	20	05/22/2014 0710
1,4-Dichlorobenzene	ND	ND		1	0.00	20	05/22/2014 0710
Dichlorodifluoromethane	ND	ND		1	0.00	20	05/22/2014 0710
1,1-Dichloroethane	ND	ND		1	0.00	20	05/22/2014 0710
1,2-Dichloroethane	ND	ND		1	0.00	20	05/22/2014 0710
1,1-Dichloroethene	ND	ND		1	0.00	20	05/22/2014 0710
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	05/22/2014 0710
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	05/22/2014 0710
1,2-Dichloropropane	ND	ND		1	0.00	20	05/22/2014 0710
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	05/22/2014 0710
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	05/22/2014 0710
Ethylbenzene	ND	ND		1	0.00	20	05/22/2014 0710
2-Hexanone	ND	ND		1	0.00	20	05/22/2014 0710
Isopropylbenzene	ND	ND		1	0.00	20	05/22/2014 0710
Methyl acetate	ND	ND		1	0.00	20	05/22/2014 0710
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	05/22/2014 0710
4-Methyl-2-pentanone	ND	ND		1	0.00	20	05/22/2014 0710
Methylcyclohexane	ND	ND		1	0.00	20	05/22/2014 0710
Methylene chloride	ND	ND		1	0.00	20	05/22/2014 0710
Styrene	ND	ND		1	0.00	20	05/22/2014 0710
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	05/22/2014 0710
Tetrachloroethene	ND	ND		1	0.00	20	05/22/2014 0710
Toluene	ND	ND		1	0.00	20	05/22/2014 0710
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	05/22/2014 0710
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	05/22/2014 0710
1,1,1-Trichloroethane	ND	ND		1	0.00	20	05/22/2014 0710
1,1,2-Trichloroethane	ND	ND		1	0.00	20	05/22/2014 0710

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE21017-002DU

Matrix: Solid

Batch: 47258

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	05/22/2014 0710
Trichlorofluoromethane	ND	ND		1	0.00	20	05/22/2014 0710
Vinyl chloride	ND	ND		1	0.00	20	05/22/2014 0710
Xylenes (total)	ND	ND		1	0.00	20	05/22/2014 0710
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		91	53-142				
Bromofluorobenzene		83	47-138				
Toluene-d8		94	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47305-001

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/22/2014 1311
Benzene	ND		1	5.0	1.1	ug/kg	05/22/2014 1311
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
Bromoform	ND		1	5.0	0.70	ug/kg	05/22/2014 1311
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/22/2014 1311
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/22/2014 1311
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/22/2014 1311
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/22/2014 1311
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
Chloroethane	ND		1	5.0	1.3	ug/kg	05/22/2014 1311
Chloroform	ND		1	5.0	0.83	ug/kg	05/22/2014 1311
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/22/2014 1311
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/22/2014 1311
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/22/2014 1311
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/22/2014 1311
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/22/2014 1311
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/22/2014 1311
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/22/2014 1311
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/22/2014 1311
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/22/2014 1311
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/22/2014 1311
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/22/2014 1311
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/22/2014 1311
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
2-Hexanone	ND		1	10	1.3	ug/kg	05/22/2014 1311
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/22/2014 1311
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/22/2014 1311
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/22/2014 1311
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/22/2014 1311
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/22/2014 1311
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/22/2014 1311
Styrene	ND		1	5.0	1.1	ug/kg	05/22/2014 1311
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/22/2014 1311
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/22/2014 1311
Toluene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/22/2014 1311
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 1311
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/22/2014 1311
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/22/2014 1311

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47305-001

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/22/2014 1311
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/22/2014 1311
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/22/2014 1311
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/22/2014 1311
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		91	47-138				
1,2-Dichloroethane-d4		91	53-142				
Toluene-d8		94	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47305-002

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	05/22/2014 1137
Benzene	50	45		1	90	69-123	05/22/2014 1137
Bromodichloromethane	50	45		1	90	69-121	05/22/2014 1137
Bromoform	50	47		1	93	61-119	05/22/2014 1137
Bromomethane (Methyl bromide)	50	44		1	88	10-168	05/22/2014 1137
2-Butanone (MEK)	100	120		1	116	57-148	05/22/2014 1137
Carbon disulfide	50	42		1	85	58-122	05/22/2014 1137
Carbon tetrachloride	50	46		1	91	58-136	05/22/2014 1137
Chlorobenzene	50	44		1	87	59-129	05/22/2014 1137
Chloroethane	50	45		1	90	42-163	05/22/2014 1137
Chloroform	50	46		1	91	71-125	05/22/2014 1137
Chloromethane (Methyl chloride)	50	45		1	90	34-134	05/22/2014 1137
Cyclohexane	50	45		1	91	53-139	05/22/2014 1137
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	93	55-125	05/22/2014 1137
Dibromochloromethane	50	45		1	90	66-119	05/22/2014 1137
1,2-Dibromoethane (EDB)	50	46		1	92	74-124	05/22/2014 1137
1,4-Dichlorobenzene	50	42		1	85	52-133	05/22/2014 1137
1,3-Dichlorobenzene	50	43		1	87	51-134	05/22/2014 1137
1,2-Dichlorobenzene	50	44		1	89	57-131	05/22/2014 1137
Dichlorodifluoromethane	50	45		1	90	10-157	05/22/2014 1137
1,2-Dichloroethane	50	47		1	93	67-129	05/22/2014 1137
1,1-Dichloroethane	50	46		1	92	71-127	05/22/2014 1137
trans-1,2-Dichloroethene	50	45		1	91	68-131	05/22/2014 1137
cis-1,2-Dichloroethene	50	45		1	90	70-122	05/22/2014 1137
1,1-Dichloroethene	50	45		1	90	69-138	05/22/2014 1137
1,2-Dichloropropane	50	45		1	90	72-124	05/22/2014 1137
trans-1,3-Dichloropropene	50	46		1	91	70-124	05/22/2014 1137
cis-1,3-Dichloropropene	50	47		1	93	70-126	05/22/2014 1137
Ethylbenzene	50	44		1	89	59-128	05/22/2014 1137
2-Hexanone	100	110		1	111	54-137	05/22/2014 1137
Isopropylbenzene	50	44		1	88	50-136	05/22/2014 1137
Methyl acetate	50	54		1	108	59-137	05/22/2014 1137
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	05/22/2014 1137
4-Methyl-2-pentanone	100	110		1	107	60-134	05/22/2014 1137
Methylcyclohexane	50	46		1	92	41-144	05/22/2014 1137
Methylene chloride	50	44		1	88	70-130	05/22/2014 1137
Styrene	50	46		1	91	54-136	05/22/2014 1137
1,1,2,2-Tetrachloroethane	50	47		1	94	69-132	05/22/2014 1137
Tetrachloroethene	50	44		1	88	45-150	05/22/2014 1137
Toluene	50	46		1	91	61-129	05/22/2014 1137
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	49-136	05/22/2014 1137
1,2,4-Trichlorobenzene	50	44		1	89	34-145	05/22/2014 1137
1,1,2-Trichloroethane	50	44		1	88	55-128	05/22/2014 1137
1,1,1-Trichloroethane	50	45		1	91	63-128	05/22/2014 1137

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47305-002

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	62-126	05/22/2014 1137
Trichlorofluoromethane	50	46		1	92	45-138	05/22/2014 1137
Vinyl chloride	50	46		1	91	42-132	05/22/2014 1137
Xylenes (total)	100	92		1	92	58-128	05/22/2014 1137
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		92	47-138				
1,2-Dichloroethane-d4		94	53-142				
Toluene-d8		100	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47305-003

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	130		1	132	1.8	60-140	20	05/22/2014 1200
Benzene	50	43		1	86	4.8	69-123	20	05/22/2014 1200
Bromodichloromethane	50	44		1	87	3.1	69-121	20	05/22/2014 1200
Bromoform	50	43		1	86	7.4	61-119	20	05/22/2014 1200
Bromomethane (Methyl bromide)	50	42		1	83	5.2	10-168	20	05/22/2014 1200
2-Butanone (MEK)	100	110		1	108	7.3	57-148	20	05/22/2014 1200
Carbon disulfide	50	40		1	80	5.9	58-122	20	05/22/2014 1200
Carbon tetrachloride	50	42		1	84	8.4	58-136	20	05/22/2014 1200
Chlorobenzene	50	42		1	84	4.3	59-129	20	05/22/2014 1200
Chloroethane	50	41		1	83	8.5	42-163	20	05/22/2014 1200
Chloroform	50	43		1	86	6.0	71-125	20	05/22/2014 1200
Chloromethane (Methyl chloride)	50	42		1	85	6.5	34-134	20	05/22/2014 1200
Cyclohexane	50	41		1	83	9.2	53-139	20	05/22/2014 1200
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	91	2.2	55-125	20	05/22/2014 1200
Dibromochloromethane	50	43		1	86	4.5	66-119	20	05/22/2014 1200
1,2-Dibromoethane (EDB)	50	43		1	85	7.8	74-124	20	05/22/2014 1200
1,4-Dichlorobenzene	50	42		1	83	1.9	52-133	20	05/22/2014 1200
1,3-Dichlorobenzene	50	41		1	83	5.2	51-134	20	05/22/2014 1200
1,2-Dichlorobenzene	50	42		1	84	5.0	57-131	20	05/22/2014 1200
Dichlorodifluoromethane	50	43		1	85	5.9	10-157	20	05/22/2014 1200
1,2-Dichloroethane	50	45		1	91	2.9	67-129	20	05/22/2014 1200
1,1-Dichloroethane	50	44		1	88	5.2	71-127	20	05/22/2014 1200
trans-1,2-Dichloroethene	50	42		1	85	7.1	68-131	20	05/22/2014 1200
cis-1,2-Dichloroethene	50	44		1	88	3.0	70-122	20	05/22/2014 1200
1,1-Dichloroethene	50	42		1	83	7.5	69-138	20	05/22/2014 1200
1,2-Dichloropropane	50	42		1	84	7.7	72-124	20	05/22/2014 1200
trans-1,3-Dichloropropene	50	44		1	88	4.2	70-124	20	05/22/2014 1200
cis-1,3-Dichloropropene	50	43		1	86	8.1	70-126	20	05/22/2014 1200
Ethylbenzene	50	42		1	84	6.1	59-128	20	05/22/2014 1200
2-Hexanone	100	100		1	103	7.9	54-137	20	05/22/2014 1200
Isopropylbenzene	50	42		1	83	5.9	50-136	20	05/22/2014 1200
Methyl acetate	50	53		1	106	2.0	59-137	20	05/22/2014 1200
Methyl tertiary butyl ether (MTBE)	50	46		1	91	5.9	70-130	20	05/22/2014 1200
4-Methyl-2-pentanone	100	100		1	100	6.6	60-134	20	05/22/2014 1200
Methylcyclohexane	50	41		1	82	11	41-144	20	05/22/2014 1200
Methylene chloride	50	43		1	85	3.5	70-130	20	05/22/2014 1200
Styrene	50	42		1	84	8.8	54-136	20	05/22/2014 1200
1,1,2,2-Tetrachloroethane	50	45		1	89	4.7	69-132	20	05/22/2014 1200
Tetrachloroethene	50	40		1	80	8.7	45-150	20	05/22/2014 1200
Toluene	50	43		1	85	6.5	61-129	20	05/22/2014 1200
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	7.2	49-136	20	05/22/2014 1200
1,2,4-Trichlorobenzene	50	42		1	85	4.7	34-145	20	05/22/2014 1200
1,1,2-Trichloroethane	50	43		1	85	3.2	55-128	20	05/22/2014 1200
1,1,1-Trichloroethane	50	44		1	87	3.9	63-128	20	05/22/2014 1200

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47305-003

Matrix: Solid

Batch: 47305

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	41		1	83	8.6	62-126	20	05/22/2014 1200
Trichlorofluoromethane	50	43		1	86	6.4	45-138	20	05/22/2014 1200
Vinyl chloride	50	43		1	86	6.0	42-132	20	05/22/2014 1200
Xylenes (total)	100	83		1	83	10	58-128	20	05/22/2014 1200
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		92	47-138						
1,2-Dichloroethane-d4		93	53-142						
Toluene-d8		97	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record

Number **34089**

Client: AECOM Address: 3820 Faber Place Dr. Suite 300 City: Charleston State: SC Zip Code: 29405 Project Name: Skidspore Composite Structures Project Number: 60918382	Report to Contact: Scott Ross Telephone No.: (803) 201-9662 Fax No.: (803) 791-9700 Email: scott.ross@aec.com Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.	Sampler (Printed Name): Chuck Sudeth Waybill No.: Number of Containers: 1 of 3 Bottle (See instructions on back): Preservative: 	Quote No.: Page: 1 of 3
Analysis Matrix: GW DW WW S Other Composite:		Possible Hazard Identification: <input type="checkbox"/> Mon-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> San Injunct <input type="checkbox"/> Poison <input type="checkbox"/> Unknown	
Sample ID / Description: (Containers for each sample may be combined on one line)	Date Time	QC Requirements (Specify) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab	Possible Hazard Identification <input type="checkbox"/> Mon-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> San Injunct <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
TMW-20-2 TMW-20-8 TMW-20-14 B-20-2 B-20-11 B-20-15 B-21-2 B-21-9 B-21-15 B-22-2	5/19/14 1735 G 5/19/14 1745 G 5/19/14 1755 G 5/20/14 1015 G 5/20/14 1020 G 5/20/14 1030 G 5/20/14 1125 G 5/20/14 1135 G 5/20/14 1145 G 5/20/14 1400 G	1. Received by: <i>Scott Ross</i> Date: 5/20/14 Time: 2100 2. Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1010 3. Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1610 4. Laboratory Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1610	1. Received by: <i>Scott Ross</i> Date: 5/20/14 Time: 2100 2. Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1010 3. Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1610 4. Laboratory Received by: <i>Chuck Sudeth</i> Date: 5/20/14 Time: 1610
Turn Around Time (Pilot for approval required for expedited "AT") Standard: 2 Y - 18 hr Rush (Please Specify):		LAB USE ONLY Packed on ice (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pack <input type="checkbox"/> Receipt Temp. 4.3 °C <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Note: All samples are retained for six weeks from receipt unless other arrangements are made.			

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 www.shealylab.com

Chain of Custody Record

Number **02681**

Client AE-COM	Report to Contact Scott Ross	Sampler (Printed Name) Chuck Subbeth	Quote No.
Address 7820 Faber-Pace Dr Suite 300		Waybill No.	Page 2 of 3
City Charleston	State SC	Zip Code 29409	Number of Containers
Project Name Shakespeare Composite Structures		Preservative	
Project Number 60318382	F.O. Number	 PE21017	
Telephone No. / Fax No. / Email (803) 201-9662			
Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. No This.			
Turn Around Time Required (Prior lab approval required for expedited TAT): 24-48 hr Standard <input checked="" type="checkbox"/> Plus (Please Specify) 24-48 hr		Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown	
Relinquished by Charles K. Subbeth Date 5/20/14 Time 2:00		1. Received by [Signature] Date 5/20/14 Time 2:00	
Relinquished by [Signature] Date 5/21/14 Time 1:00		2. Received by Date Time	
Relinquished by Date Time		3. Received by Date Time	
Relinquished by Date Time		4. Laboratory Received by [Signature] Date 5/21/14 Time 1:00	
Note: All samples are retained for six weeks from receipt unless other arrangements are made.		LAB USE ONLY Received on Ice (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack Receipt Temp. 4.3 °C Temp. Blank <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N	

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Aecom Cooler Inspected by/date: KWP 15-21-14 Lot #: PE21017

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>137314.2/14.3</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: _____ °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: _____ Verified by: _____ Date: <u>5-21-14</u>		

Comments: _____

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare Newberry**

Project Number: **60318382.5**

Lot Number: **PE22065**

Date Completed: **06/09/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE22065 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE22065

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE22065

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	05/22/2014 1015	05/22/2014
002	MW-7	Aqueous	05/22/2014 1230	05/22/2014
003	MW-6	Aqueous	05/22/2014 1435	05/22/2014
004	MW-8	Aqueous	05/22/2014 1510	05/22/2014
005	Trip Blank	Aqueous	05/22/2014	05/22/2014
006	TMW-22	Aqueous	05/22/2014 1035	05/22/2014
007	TMW-21A	Aqueous	05/22/2014 1250	05/22/2014
008	TMW-21	Aqueous	05/22/2014 1250	05/22/2014
009	B-28-22	Solid	05/22/2014 1630	05/22/2014
010	B-26-4	Solid	05/22/2014 0947	05/22/2014
011	B-26-14	Solid	05/22/2014 1000	05/22/2014
012	B-26-25	Solid	05/22/2014 1010	05/22/2014
013	B-27-2	Solid	05/22/2014 1225	05/22/2014
014	B27-4	Solid	05/22/2014 1220	05/22/2014
015	B-27-14	Solid	05/22/2014 1230	05/22/2014
016	B-27-25	Solid	05/22/2014 1240	05/22/2014
017	B-28-6	Solid	05/22/2014 1615	05/22/2014
018	B-28-10	Solid	05/22/2014 1620	05/22/2014
019	B-28-14	Solid	05/22/2014 1625	05/22/2014

(19 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE22065

Sample ID	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1	Aqueous	Chloride	300.0	1.3		mg/L	7
001	MW-1	Aqueous	Ferric Iron (calculation)	SM	0.063	J	mg/L	7
001	MW-1	Aqueous	Nitrate - N	353.2	0.19		mg/L	7
001	MW-1	Aqueous	Sulfate	300.0	11		mg/L	7
001	MW-1	Aqueous	TOC	SM 5310C-	1.1		mg/L	7
001	MW-1	Aqueous	Styrene	8260B	0.45	J	ug/L	8
001	MW-1	Aqueous	Dissolved Manganese	6010C	0.22		mg/L	10
001	MW-1	Aqueous	Iron	6010C	0.023	J	mg/L	11
001	MW-1	Aqueous	Manganese	6010C	0.23		mg/L	11
002	MW-7	Aqueous	Alkalinity	SM 2320B-	5.6	J	mg/L	12
002	MW-7	Aqueous	Bromide	300.0	0.19	J	mg/L	12
002	MW-7	Aqueous	Chloride	300.0	6.1		mg/L	12
002	MW-7	Aqueous	Ferric Iron (calculation)	SM	0.30		mg/L	12
002	MW-7	Aqueous	Ferrous Iron	SM 3500-Fe B-	0.15		mg/L	12
002	MW-7	Aqueous	Nitrate - N	353.2	0.019	J	mg/L	12
002	MW-7	Aqueous	TOC	SM 5310C-	0.97	J	mg/L	12
002	MW-7	Aqueous	Benzene	8260B	0.29	J	ug/L	13
002	MW-7	Aqueous	Carbon disulfide	8260B	0.47	J	ug/L	13
002	MW-7	Aqueous	1,1-Dichloroethane	8260B	1.5	J	ug/L	13
002	MW-7	Aqueous	1,1-Dichloroethene	8260B	1.9	J	ug/L	13
002	MW-7	Aqueous	cis-1,2-Dichloroethene	8260B	95		ug/L	13
002	MW-7	Aqueous	trans-1,2-Dichloroethene	8260B	0.87	J	ug/L	13
002	MW-7	Aqueous	Isopropylbenzene	8260B	2.1	J	ug/L	13
002	MW-7	Aqueous	Styrene	8260B	0.14	J	ug/L	13
002	MW-7	Aqueous	Trichloroethene	8260B	19		ug/L	14
002	MW-7	Aqueous	Vinyl chloride	8260B	3.8		ug/L	14
002	MW-7	Aqueous	Dissolved Manganese	6010C	0.099		mg/L	15
002	MW-7	Aqueous	Iron	6010C	0.045	J	mg/L	16
002	MW-7	Aqueous	Manganese	6010C	0.10		mg/L	16
003	MW-6	Aqueous	Alkalinity	SM 2320B-	12		mg/L	17
003	MW-6	Aqueous	Bromide	300.0	0.35		mg/L	17
003	MW-6	Aqueous	Chloride	300.0	14		mg/L	17
003	MW-6	Aqueous	Ferrous Iron	SM 3500-Fe B-	5.7		mg/L	17
003	MW-6	Aqueous	Nitrite - N	353.2	0.0042	J	mg/L	17
003	MW-6	Aqueous	Sulfate	300.0	2.9		mg/L	17
003	MW-6	Aqueous	Sulfide	SM 4500-S2 F-	0.90	J	mg/L	17
003	MW-6	Aqueous	TOC	SM 5310C-	2.7		mg/L	17
003	MW-6	Aqueous	cis-1,2-Dichloroethene	8260B	620		ug/L	18
003	MW-6	Aqueous	trans-1,2-Dichloroethene	8260B	18	J	ug/L	18
003	MW-6	Aqueous	Styrene	8260B	1.3	J	ug/L	18
003	MW-6	Aqueous	Trichloroethene	8260B	40	J	ug/L	19
003	MW-6	Aqueous	Vinyl chloride	8260B	23		ug/L	19
003	MW-6	Aqueous	Dissolved Iron	6010C	5.3		mg/L	20
003	MW-6	Aqueous	Dissolved Manganese	6010C	0.072		mg/L	20
003	MW-6	Aqueous	Iron	6010C	5.6		mg/L	21

Executive Summary (Continued)

Lot Number: PE22065

Sample ID	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
003	MW-6	Aqueous	Manganese	6010C	0.071		mg/L	21
004	MW-8	Aqueous	Alkalinity	SM 2320B-	11		mg/L	22
004	MW-8	Aqueous	Bromide	300.0	0.14	J	mg/L	22
004	MW-8	Aqueous	Chloride	300.0	6.6		mg/L	22
004	MW-8	Aqueous	Ferrous Iron	SM 3500-Fe B-	0.38		mg/L	22
004	MW-8	Aqueous	Nitrate - N	353.2	0.10		mg/L	22
004	MW-8	Aqueous	Sulfate	300.0	4.2		mg/L	22
004	MW-8	Aqueous	TOC	SM 5310C-	1.1		mg/L	22
004	MW-8	Aqueous	cis-1,2-Dichloroethene	8260B	80		ug/L	23
004	MW-8	Aqueous	Styrene	8260B	2.2	J	ug/L	23
004	MW-8	Aqueous	Tetrachloroethene	8260B	5.7	J	ug/L	23
004	MW-8	Aqueous	Trichloroethene	8260B	890		ug/L	24
004	MW-8	Aqueous	Dissolved Iron	6010C	0.17		mg/L	25
004	MW-8	Aqueous	Dissolved Manganese	6010C	0.13		mg/L	25
004	MW-8	Aqueous	Iron	6010C	0.24		mg/L	26
004	MW-8	Aqueous	Manganese	6010C	0.13		mg/L	26
006	TMW-22	Aqueous	cis-1,2-Dichloroethene	8260B	57		ug/L	29
006	TMW-22	Aqueous	Styrene	8260B	46	J	ug/L	29
006	TMW-22	Aqueous	Tetrachloroethene	8260B	4.5	J	ug/L	29
006	TMW-22	Aqueous	Trichloroethene	8260B	790		ug/L	30
007	TMW-21A	Aqueous	cis-1,2-Dichloroethene	8260B	91	J	ug/L	31
007	TMW-21A	Aqueous	trans-1,2-Dichloroethene	8260B	9.0	J	ug/L	31
007	TMW-21A	Aqueous	Styrene	8260B	7.3	J	ug/L	31
007	TMW-21A	Aqueous	Trichloroethene	8260B	1100		ug/L	32
008	TMW-21	Aqueous	cis-1,2-Dichloroethene	8260B	88	J	ug/L	33
008	TMW-21	Aqueous	trans-1,2-Dichloroethene	8260B	9.8	J	ug/L	33
008	TMW-21	Aqueous	Styrene	8260B	7.1	J	ug/L	33
008	TMW-21	Aqueous	Trichloroethene	8260B	1100		ug/L	34
009	B-28-22	Solid	Acetone	8260B	11	J	ug/kg	35
009	B-28-22	Solid	Chloroform	8260B	1.4	J	ug/kg	35
009	B-28-22	Solid	cis-1,2-Dichloroethene	8260B	1.1	J	ug/kg	35
009	B-28-22	Solid	Styrene	8260B	4.3	J	ug/kg	35
009	B-28-22	Solid	Tetrachloroethene	8260B	0.88	J	ug/kg	35
009	B-28-22	Solid	Trichloroethene	8260B	100		ug/kg	36
010	B-26-4	Solid	Acetone	8260B	42		ug/kg	37
010	B-26-4	Solid	cis-1,2-Dichloroethene	8260B	2.9	J	ug/kg	37
010	B-26-4	Solid	Styrene	8260B	13		ug/kg	37
011	B-26-14	Solid	Acetone	8260B	14	J	ug/kg	39
011	B-26-14	Solid	cis-1,2-Dichloroethene	8260B	13		ug/kg	39
011	B-26-14	Solid	Styrene	8260B	5.8		ug/kg	39
011	B-26-14	Solid	Trichloroethene	8260B	40		ug/kg	40
012	B-26-25	Solid	Acetone	8260B	67		ug/kg	41
012	B-26-25	Solid	cis-1,2-Dichloroethene	8260B	9.8		ug/kg	41
012	B-26-25	Solid	Styrene	8260B	38		ug/kg	41
012	B-26-25	Solid	Trichloroethene	8260B	45		ug/kg	42
013	B-27-2	Solid	Acetone	8260B	92		ug/kg	43
013	B-27-2	Solid	2-Butanone (MEK)	8260B	9.9	J	ug/kg	43
013	B-27-2	Solid	cis-1,2-Dichloroethene	8260B	45		ug/kg	43

Executive Summary (Continued)

Lot Number: PE22065

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
013	B-27-2	Solid	trans-1,2-Dichloroethene	8260B	4.9	J	ug/kg	43
013	B-27-2	Solid	Styrene	8260B	2.7	J	ug/kg	43
013	B-27-2	Solid	Trichloroethene	8260B	51		ug/kg	44
014	B27-4	Solid	Acetone	8260B	57		ug/kg	45
014	B27-4	Solid	cis-1,2-Dichloroethene	8260B	41		ug/kg	45
014	B27-4	Solid	Styrene	8260B	4.5	J	ug/kg	45
014	B27-4	Solid	Tetrachloroethene	8260B	1.3	J	ug/kg	45
014	B27-4	Solid	Trichloroethene	8260B	230		ug/kg	46
015	B-27-14	Solid	Acetone	8260B	63		ug/kg	47
015	B-27-14	Solid	cis-1,2-Dichloroethene	8260B	130		ug/kg	47
015	B-27-14	Solid	trans-1,2-Dichloroethene	8260B	9.5		ug/kg	47
015	B-27-14	Solid	Styrene	8260B	19		ug/kg	47
015	B-27-14	Solid	Trichloroethene	8260B	70		ug/kg	48
016	B-27-25	Solid	Acetone	8260B	29		ug/kg	49
016	B-27-25	Solid	cis-1,2-Dichloroethene	8260B	24		ug/kg	49
016	B-27-25	Solid	Styrene	8260B	8.3		ug/kg	49
016	B-27-25	Solid	Trichloroethene	8260B	14		ug/kg	50
017	B-28-6	Solid	Acetone	8260B	20	J	ug/kg	51
017	B-28-6	Solid	cis-1,2-Dichloroethene	8260B	32		ug/kg	51
017	B-28-6	Solid	Styrene	8260B	5.0	J	ug/kg	51
017	B-28-6	Solid	Tetrachloroethene	8260B	0.54	J	ug/kg	51
017	B-28-6	Solid	Trichloroethene	8260B	77		ug/kg	52
018	B-28-10	Solid	Acetone	8260B	51		ug/kg	53
018	B-28-10	Solid	cis-1,2-Dichloroethene	8260B	3.9	J	ug/kg	53
018	B-28-10	Solid	Styrene	8260B	11		ug/kg	53
018	B-28-10	Solid	Trichloroethene	8260B	8.6		ug/kg	54
019	B-28-14	Solid	cis-1,2-Dichloroethene	8260B	16		ug/kg	55
019	B-28-14	Solid	Styrene	8260B	4.5	J	ug/kg	55
019	B-28-14	Solid	Trichloroethene	8260B	62		ug/kg	56

(122 detections)

Inorganic non-metals

Client: **AECOM**

Laboratory ID: **PE22065-001**

Description: **MW-1**

Matrix: **Aqueous**

Date Sampled: **05/22/2014 1015**

Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	(Alkalinity)	SM 2320B-2011	1	05/25/2014 0335	TAF		47926
2	(Bromide)	300.0	1	05/28/2014 1737	TAF		47832
2	(Chloride)	300.0	1	05/28/2014 1737	TAF		47833
1	(Ferric Iron)	SM 3500/6010B	1	06/06/2014 1226	SLA		
1	(Ferrous Iron)	SM 3500-Fe B-2011	1	05/22/2014 2021	BLB		47544
1	(Nitrate - N)	353.2	1	05/22/2014 2150	BWS		47842
1	(Nitrite - N)	353.2	1	05/22/2014 2150	BWS		47793
2	(Sulfate)	300.0	1	05/28/2014 1737	TAF		47834
1	(Sulfide)	SM 4500-S2 F-2011	1	05/28/2014 0814	TAF		48131
1	(TOC)	SM 5310C-2011	1	06/04/2014 2058	TAF		48500

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Alkalinity		SM 2320B-20	ND		10	3.9	mg/L	1
Bromide		300.0	ND		0.20	0.041	mg/L	2
Chloride		300.0	1.3		1.0	0.11	mg/L	2
Ferric Iron (calculation)		SM 3500/601	0.063	J	0.10	0.024	mg/L	1
Ferrous Iron		SM 3500-Fe	ND		0.050	0.024	mg/L	1
Nitrate - N		353.2	0.19		0.020	0.0013	mg/L	1
Nitrite - N		353.2	ND		0.020	0.0034	mg/L	1
Sulfate		300.0	11		1.0	0.28	mg/L	2
Sulfide	18496-25-8	SM 4500-S2	ND		1.0	0.62	mg/L	1
TOC		SM 5310C-20	1.1		1.0	0.093	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PE22065-001**

Description: **MW-1**

Matrix: **Aqueous**

Date Sampled: **05/22/2014 1015**

Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1231	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.45	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-001
Description: MW-1	Matrix: Aqueous
Date Sampled: 05/22/2014 1015	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1231	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-001
Description: MW-1	Matrix: Aqueous
Date Sampled: 05/22/2014 1015	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0534	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Dissolved Iron	7439-89-6	6010C	ND		0.10	0.023	mg/L	1
Dissolved Manganese	7439-96-5	6010C	0.22		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-001
Description: MW-1	Matrix: Aqueous
Date Sampled: 05/22/2014 1015	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0530	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Iron	7439-89-6	6010C	0.023	J	0.10	0.023	mg/L	1
Manganese	7439-96-5	6010C	0.23		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: AECOM	Laboratory ID: PE22065-002
Description: MW-7	Matrix: Aqueous
Date Sampled: 05/22/2014 1230	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B-2011	1	05/25/2014 0339	TAF		47926
2		(Bromide) 300.0	1	05/28/2014 1801	TAF		47832
2		(Chloride) 300.0	1	05/28/2014 1801	TAF		47833
1		(Ferric Iron) SM 3500/6010B	1	06/06/2014 1226	SLA		
1		(Ferrous Iron) SM 3500-Fe B-2011	1	05/22/2014 2021	BLB		47544
1		(Nitrate - N) 353.2	1	05/22/2014 2151	BWS		47842
1		(Nitrite - N) 353.2	1	05/22/2014 2151	BWS		47793
2		(Sulfate) 300.0	1	05/28/2014 1801	TAF		47834
1		(Sulfide) SM 4500-S2 F-2011	1	05/28/2014 0814	TAF		48131
1		(TOC) SM 5310C-2011	1	06/04/2014 2154	TAF		48500

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Alkalinity		SM 2320B-20	5.6	J	10	3.9	mg/L	1
Bromide		300.0	0.19	J	0.20	0.041	mg/L	2
Chloride		300.0	6.1		1.0	0.11	mg/L	2
Ferric Iron (calculation)		SM 3500/601	0.30		0.10	0.024	mg/L	1
Ferrous Iron		SM 3500-Fe	0.15		0.050	0.024	mg/L	1
Nitrate - N		353.2	0.019	J	0.020	0.0013	mg/L	1
Nitrite - N		353.2	ND		0.020	0.0034	mg/L	1
Sulfate		300.0	ND		1.0	0.28	mg/L	2
Sulfide	18496-25-8	SM 4500-S2	ND		1.0	0.62	mg/L	1
TOC		SM 5310C-20	0.97	J	1.0	0.093	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-002
Description: MW-7	Matrix: Aqueous
Date Sampled: 05/22/2014 1230	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1255	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.29	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	0.47	J	5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	1.5	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	1.9	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	95		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	0.87	J	5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	2.1	J	5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.14	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-002
Description: MW-7	Matrix: Aqueous
Date Sampled: 05/22/2014 1230	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1255	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	19		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	3.8		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-002
Description: MW-7	Matrix: Aqueous
Date Sampled: 05/22/2014 1230	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0542	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Dissolved Iron	7439-89-6	6010C	ND		0.10	0.023	mg/L	1
Dissolved Manganese	7439-96-5	6010C	0.099		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-002
Description: MW-7	Matrix: Aqueous
Date Sampled: 05/22/2014 1230	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0538	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Iron	7439-89-6	6010C	0.045	J	0.10	0.023	mg/L	1
Manganese	7439-96-5	6010C	0.10		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: AECOM	Laboratory ID: PE22065-003
Description: MW-6	Matrix: Aqueous
Date Sampled: 05/22/2014 1435	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B-2011	1	05/25/2014 0343	TAF		47926
2		(Bromide) 300.0	1	05/28/2014 1825	TAF		47832
2		(Chloride) 300.0	1	05/28/2014 1825	TAF		47833
1		(Ferric Iron) SM 3500/6010B	1	06/06/2014 1226	SLA		
1		(Ferrous Iron) SM 3500-Fe B-2011	5	05/22/2014 2021	BLB		47544
1		(Nitrate - N) 353.2	1	05/22/2014 2152	BWS		47842
1		(Nitrite - N) 353.2	1	05/22/2014 2152	BWS		47793
2		(Sulfate) 300.0	1	05/28/2014 1825	TAF		47834
1		(Sulfide) SM 4500-S2 F-2011	1	05/28/2014 0814	TAF		48131
1		(TOC) SM 5310C-2011	1	06/04/2014 2212	TAF		48500

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Alkalinity		SM 2320B-20	12		10	3.9	mg/L	1
Bromide		300.0	0.35		0.20	0.041	mg/L	2
Chloride		300.0	14		1.0	0.11	mg/L	2
Ferric Iron (calculation)		SM 3500/601	ND		0.10	0.024	mg/L	1
Ferrous Iron		SM 3500-Fe	5.7		0.25	0.12	mg/L	1
Nitrate - N		353.2	ND		0.020	0.0013	mg/L	1
Nitrite - N		353.2	0.0042	J	0.020	0.0034	mg/L	1
Sulfate		300.0	2.9		1.0	0.28	mg/L	2
Sulfide	18496-25-8	SM 4500-S2	0.90	J	1.0	0.62	mg/L	1
TOC		SM 5310C-20	2.7		1.0	0.093	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-003
Description: MW-6	Matrix: Aqueous
Date Sampled: 05/22/2014 1435	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1319	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	620		50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	18	J	50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	1.3	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-003
Description: MW-6	Matrix: Aqueous
Date Sampled: 05/22/2014 1435	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1319	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	40	J	50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	23		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-003
Description: MW-6	Matrix: Aqueous
Date Sampled: 05/22/2014 1435	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0549	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Dissolved Iron	7439-89-6	6010C	5.3		0.10	0.023	mg/L	1
Dissolved Manganese	7439-96-5	6010C	0.072		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: AECOM	Laboratory ID: PE22065-003
Description: MW-6	Matrix: Aqueous
Date Sampled: 05/22/2014 1435	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0545	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Iron	7439-89-6	6010C	5.6		0.10	0.023	mg/L	1
Manganese	7439-96-5	6010C	0.071		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: **AECOM**

Laboratory ID: **PE22065-004**

Description: **MW-8**

Matrix: **Aqueous**

Date Sampled: **05/22/2014 1510**

Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	(Alkalinity)	SM 2320B-2011	1	05/25/2014 0346	TAF		47926
2	(Bromide)	300.0	1	05/28/2014 1849	TAF		47832
2	(Chloride)	300.0	1	05/28/2014 1849	TAF		47833
1	(Ferric Iron)	SM 3500/6010B	1	06/06/2014 1226	SLA		
1	(Ferrous Iron)	SM 3500-Fe B-2011	1	05/22/2014 2021	BLB		47544
1	(Nitrate - N)	353.2	1	05/22/2014 2153	BWS		47842
1	(Nitrite - N)	353.2	1	05/22/2014 2153	BWS		47793
2	(Sulfate)	300.0	1	05/28/2014 1849	TAF		47834
1	(Sulfide)	SM 4500-S2 F-2011	1	05/28/2014 0814	TAF		48131
1	(TOC)	SM 5310C-2011	1	06/04/2014 2304	TAF		48500

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Alkalinity		SM 2320B-20	11		10	3.9	mg/L	1
Bromide		300.0	0.14	J	0.20	0.041	mg/L	2
Chloride		300.0	6.6		1.0	0.11	mg/L	2
Ferric Iron (calculation)		SM 3500/601	ND		0.10	0.024	mg/L	1
Ferrous Iron		SM 3500-Fe	0.38		0.050	0.024	mg/L	1
Nitrate - N		353.2	0.10		0.020	0.0013	mg/L	1
Nitrite - N		353.2	ND		0.020	0.0034	mg/L	1
Sulfate		300.0	4.2		1.0	0.28	mg/L	2
Sulfide	18496-25-8	SM 4500-S2	ND		1.0	0.62	mg/L	1
TOC		SM 5310C-20	1.1		1.0	0.093	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-004
Description: MW-8	Matrix: Aqueous
Date Sampled: 05/22/2014 1510	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1350	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	80		50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	2.2	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	5.7	J	50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-004
Description: MW-8	Matrix: Aqueous
Date Sampled: 05/22/2014 1510	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1350	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	890		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: **AECOM**Laboratory ID: **PE22065-004**Description: **MW-8**Matrix: **Aqueous**Date Sampled: **05/22/2014 1510**Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0604	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Dissolved Iron	7439-89-6	6010C	0.17		0.10	0.023	mg/L	1
Dissolved Manganese	7439-96-5	6010C	0.13		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Page: 25 of 109

Level 1 Report v2.1

ICP-AES

Client: AECOM	Laboratory ID: PE22065-004
Description: MW-8	Matrix: Aqueous
Date Sampled: 05/22/2014 1510	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	05/28/2014 0553	CDF	05/27/2014 1400	47531

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Iron	7439-89-6	6010C	0.24		0.10	0.023	mg/L	1
Manganese	7439-96-5	6010C	0.13		0.015	0.0049	mg/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-005
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 05/22/2014	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1207	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-005
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 05/22/2014	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/23/2014 1207	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PE22065-006**

 Description: **TMW-22**

 Matrix: **Aqueous**

 Date Sampled: **05/22/2014 1035**

 Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1413	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	57		50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	46	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.5	J	50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Page: 29 of 109

Level 1 Report v2.1

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-006
Description: TMW-22	Matrix: Aqueous
Date Sampled: 05/22/2014 1035	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	05/23/2014 1413	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	790		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-007
Description: TMW-21A	Matrix: Aqueous
Date Sampled: 05/22/2014 1250	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	05/23/2014 1437	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		400	130	ug/L	1
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	34	ug/L	1
Bromoform	75-25-2	8260B	ND		100	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	16	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	36	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	6.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	34	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	10	ug/L	1
Chloroform	67-66-3	8260B	ND		100	34	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	6.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	34	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	6.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	34	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	34	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	34	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	4.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	6.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	10	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	91	J	100	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	9.0	J	100	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	6.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	6.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	6.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		100	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		100	14	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	16	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	19	ug/L	1
Methylene chloride	75-09-2	8260B	ND		100	34	ug/L	1
Styrene	100-42-5	8260B	7.3	J	100	2.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		100	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	6.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	34	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	6.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-007
Description: TMW-21A	Matrix: Aqueous
Date Sampled: 05/22/2014 1250	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	05/23/2014 1437	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	1100		100	6.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		100	6.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		40	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PE22065-008**

 Description: **TMW-21**

 Matrix: **Aqueous**

 Date Sampled: **05/22/2014 1250**

 Date Received: **05/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	05/23/2014 1501	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		400	130	ug/L	1
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	34	ug/L	1
Bromoform	75-25-2	8260B	ND		100	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	16	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	36	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	6.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	34	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	10	ug/L	1
Chloroform	67-66-3	8260B	ND		100	34	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	6.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	34	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	6.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	34	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	34	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	34	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	4.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	6.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	10	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	88	J	100	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	9.8	J	100	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	6.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	6.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	6.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		100	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		100	14	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	16	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	19	ug/L	1
Methylene chloride	75-09-2	8260B	ND		100	34	ug/L	1
Styrene	100-42-5	8260B	7.1	J	100	2.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		100	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	6.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	34	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	6.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-008
Description: TMW-21	Matrix: Aqueous
Date Sampled: 05/22/2014 1250	
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	05/23/2014 1501	DCS		47387

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	1100		100	6.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		100	6.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		40	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-009
Description: B-28-22	Matrix: Solid
Date Sampled: 05/22/2014 1630	% Solids: 78.2 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2250	JJG		47348	6.36

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	20	6.7	ug/kg	1
Benzene	71-43-2	8260B	ND		5.0	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.0	0.70	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.0	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.0	1.3	ug/kg	1
Chloroform	67-66-3	8260B	1.4	J	5.0	0.83	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.68	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.85	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.73	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.1	J	5.0	0.76	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.92	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.68	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.82	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.99	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.41	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.6	ug/kg	1
Styrene	100-42-5	8260B	4.3	J	5.0	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.47	ug/kg	1
Tetrachloroethene	127-18-4	8260B	0.88	J	5.0	0.50	ug/kg	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.63	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.85	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.79	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-009
Description: B-28-22	Matrix: Solid
Date Sampled: 05/22/2014 1630	% Solids: 78.2 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2250	JJG		47348	6.36

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	100		5.0	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.0	0.86	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		94	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-010
Description: B-26-4	Matrix: Solid
Date Sampled: 05/22/2014 0947	% Solids: 81.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2313	JJG		47348	6.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	42		19	6.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.8	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.8	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.8	0.67	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.8	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.6	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.8	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.8	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.8	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.8	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.8	0.80	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.8	0.96	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.8	0.65	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.8	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.8	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.8	0.82	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.8	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.8	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.8	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.8	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.8	0.70	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.8	0.96	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.8	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.9	J	4.8	0.73	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.8	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.8	0.87	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.8	0.65	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.8	0.79	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.8	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.6	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.8	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.8	0.94	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.8	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.6	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.8	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.8	2.5	ug/kg	1
Styrene	100-42-5	8260B	13		4.8	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.8	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.8	0.48	ug/kg	1
Toluene	108-88-3	8260B	ND		4.8	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.8	0.60	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.8	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.8	0.82	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.8	0.76	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-010
Description: B-26-4	Matrix: Solid
Date Sampled: 05/22/2014 0947	% Solids: 81.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2313	JJG		47348	6.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.8	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.8	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.8	0.83	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.8	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	53-142
Bromofluorobenzene		92	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-011
Description: B-26-14	Matrix: Solid
Date Sampled: 05/22/2014 1000	% Solids: 82.4 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2337	JJG		47348	6.25

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	14	J	19	6.5	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.68	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.7	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.9	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.81	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.97	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.9	0.65	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.71	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.97	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	13		4.9	0.74	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.88	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.66	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.80	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.9	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.7	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.9	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.95	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.7	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.5	ug/kg	1
Styrene	100-42-5	8260B	5.8		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.77	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-011
Description: B-26-14	Matrix: Solid
Date Sampled: 05/22/2014 1000	% Solids: 82.4 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/22/2014 2337	JJG		47348	6.25

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	40		4.9	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.83	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.9	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	53-142
Bromofluorobenzene		94	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-012
Description: B-26-25	Matrix: Solid
Date Sampled: 05/22/2014 1010	% Solids: 77.7 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0000	JJG		47348	5.93

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	67		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	9.8		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	38		5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-012
Description: B-26-25	Matrix: Solid
Date Sampled: 05/22/2014 1010	% Solids: 77.7 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0000	JJG		47348	5.93

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	45		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	53-142
Bromofluorobenzene		99	47-138
Toluene-d8		101	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-013
Description: B-27-2	Matrix: Solid
Date Sampled: 05/22/2014 1225	% Solids: 87.1 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0023	JJG		47348	5.20

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	92		22	7.4	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	9.9	J	11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.92	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.94	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.81	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	45		5.5	0.84	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	4.9	J	5.5	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.75	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.9	ug/kg	1
Styrene	100-42-5	8260B	2.7	J	5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.70	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.94	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.87	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-013
Description: B-27-2	Matrix: Solid
Date Sampled: 05/22/2014 1225	% Solids: 87.1 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0023	JJG		47348	5.20

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	51		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.95	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		91	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-014
Description: B27-4	Matrix: Solid
Date Sampled: 05/22/2014 1220	% Solids: 82.5 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0047	JJG		47348	5.03

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	57		24	8.1	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.84	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.81	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.88	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	41		6.0	0.92	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.82	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.99	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	4.5	J	6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.57	ug/kg	1
Tetrachloroethene	127-18-4	8260B	1.3	J	6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.76	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.95	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-014
Description: B27-4	Matrix: Solid
Date Sampled: 05/22/2014 1220	% Solids: 82.5 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0047	JJG		47348	5.03

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	230		6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		91	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-015
Description: B-27-14	Matrix: Solid
Date Sampled: 05/22/2014 1230	% Solids: 77.7 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0110	JJG		47348	5.86

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	63		22	7.4	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	130		5.5	0.83	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	9.5		5.5	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.75	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.9	ug/kg	1
Styrene	100-42-5	8260B	19		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.93	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.87	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-015
Description: B-27-14	Matrix: Solid
Date Sampled: 05/22/2014 1230	% Solids: 77.7 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0110	JJG		47348	5.86

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	70		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		93	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-016
Description: B-27-25	Matrix: Solid
Date Sampled: 05/22/2014 1240	% Solids: 79.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0133	JJG		47348	6.04

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	29		21	7.0	ug/kg	1
Benzene	71-43-2	8260B	ND		5.2	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.2	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.2	0.73	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.2	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.2	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.2	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.2	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.2	0.87	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.2	0.71	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.2	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	0.89	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	0.76	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	24		5.2	0.80	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	0.95	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	0.71	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	0.86	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.2	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.2	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.2	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.2	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.2	2.7	ug/kg	1
Styrene	100-42-5	8260B	8.3		5.2	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	0.49	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.2	0.52	ug/kg	1
Toluene	108-88-3	8260B	ND		5.2	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	0.66	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	0.89	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	0.83	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-016
Description: B-27-25	Matrix: Solid
Date Sampled: 05/22/2014 1240	% Solids: 79.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0133	JJG		47348	6.04

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	14		5.2	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.2	0.90	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.2	3.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-017
Description: B-28-6	Matrix: Solid
Date Sampled: 05/22/2014 1615	% Solids: 85.1 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/23/2014 1231	JHD		47406	5.66

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	20	J	21	7.0	ug/kg	2
Benzene	71-43-2	8260B	ND		5.2	1.1	ug/kg	2
Bromodichloromethane	75-27-4	8260B	ND		5.2	1.8	ug/kg	2
Bromoform	75-25-2	8260B	ND		5.2	0.73	ug/kg	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	1.9	ug/kg	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	2
Carbon disulfide	75-15-0	8260B	ND		5.2	1.3	ug/kg	2
Carbon tetrachloride	56-23-5	8260B	ND		5.2	1.9	ug/kg	2
Chlorobenzene	108-90-7	8260B	ND		5.2	1.8	ug/kg	2
Chloroethane	75-00-3	8260B	ND		5.2	1.3	ug/kg	2
Chloroform	67-66-3	8260B	ND		5.2	0.86	ug/kg	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	1.0	ug/kg	2
Cyclohexane	110-82-7	8260B	ND		5.2	0.70	ug/kg	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	1.6	ug/kg	2
Dibromochloromethane	124-48-1	8260B	ND		5.2	1.8	ug/kg	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	0.88	ug/kg	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	1.8	ug/kg	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	1.8	ug/kg	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	1.8	ug/kg	2
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	1.7	ug/kg	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	0.76	ug/kg	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	1.0	ug/kg	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	1.8	ug/kg	2
cis-1,2-Dichloroethene	156-59-2	8260B	32		5.2	0.79	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	1.6	ug/kg	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	0.94	ug/kg	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	0.71	ug/kg	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	0.85	ug/kg	2
Ethylbenzene	100-41-4	8260B	ND		5.2	1.8	ug/kg	2
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	2
Isopropylbenzene	98-82-8	8260B	ND		5.2	0.24	ug/kg	2
Methyl acetate	79-20-9	8260B	ND		5.2	1.0	ug/kg	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	0.42	ug/kg	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.6	ug/kg	2
Methylcyclohexane	108-87-2	8260B	ND		5.2	0.43	ug/kg	2
Methylene chloride	75-09-2	8260B	ND		5.2	2.7	ug/kg	2
Styrene	100-42-5	8260B	5.0	J	5.2	1.1	ug/kg	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	0.49	ug/kg	2
Tetrachloroethene	127-18-4	8260B	0.54	J	5.2	0.52	ug/kg	2
Toluene	108-88-3	8260B	ND		5.2	1.8	ug/kg	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	0.65	ug/kg	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	1.8	ug/kg	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	0.88	ug/kg	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	0.82	ug/kg	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-017
Description: B-28-6	Matrix: Solid
Date Sampled: 05/22/2014 1615	% Solids: 85.1 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260B	1	05/23/2014 1231	JHD		47406	5.66

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	77		5.2	2.0	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	1.6	ug/kg	2
Vinyl chloride	75-01-4	8260B	ND		5.2	0.89	ug/kg	2
Xylenes (total)	1330-20-7	8260B	ND		5.2	3.0	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-018
Description: B-28-10	Matrix: Solid
Date Sampled: 05/22/2014 1620	% Solids: 81.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0219	JJG		47348	4.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	51		27	9.0	ug/kg	1
Benzene	71-43-2	8260B	ND		6.7	1.5	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.7	2.3	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.7	0.94	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.7	2.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		13	3.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.7	1.7	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.7	2.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.7	2.3	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.7	1.7	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.7	1.1	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.7	1.3	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.7	0.90	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.7	2.0	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.7	2.3	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.7	1.1	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.7	2.3	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.7	2.3	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.7	2.3	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.7	2.1	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.7	0.98	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.7	1.3	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.7	2.3	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.9	J	6.7	1.0	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.7	2.0	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.7	1.2	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.7	0.91	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.7	1.1	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.7	2.3	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		13	1.7	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.7	0.31	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.7	1.3	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.7	0.53	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		13	2.0	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.7	0.55	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.7	3.5	ug/kg	1
Styrene	100-42-5	8260B	11		6.7	1.5	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.7	0.63	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.7	0.67	ug/kg	1
Toluene	108-88-3	8260B	ND		6.7	2.3	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.7	0.84	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.7	2.3	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.7	1.1	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.7	1.1	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-018
Description: B-28-10	Matrix: Solid
Date Sampled: 05/22/2014 1620	% Solids: 81.0 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0219	JJG		47348	4.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	8.6		6.7	2.5	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.7	2.0	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.7	1.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.7	3.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-019
Description: B-28-14	Matrix: Solid
Date Sampled: 05/22/2014 1625	% Solids: 78.9 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0242	JJG		47348	6.15

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		21	6.9	ug/kg	1
Benzene	71-43-2	8260B	ND		5.2	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.2	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.2	0.72	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.2	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.2	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.2	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.2	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.2	0.86	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.2	0.69	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.2	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	0.88	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	0.75	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	16		5.2	0.78	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	0.94	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	0.70	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	0.85	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.2	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.2	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.2	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	0.41	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.2	0.42	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.2	2.7	ug/kg	1
Styrene	100-42-5	8260B	4.5	J	5.2	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.2	0.52	ug/kg	1
Toluene	108-88-3	8260B	ND		5.2	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	0.65	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	0.88	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	0.81	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE22065-019
Description: B-28-14	Matrix: Solid
Date Sampled: 05/22/2014 1625	% Solids: 78.9 05/22/2014 2147
Date Received: 05/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/23/2014 0242	JJG		47348	6.15

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	62		5.2	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.2	0.89	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.2	3.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Inorganic non-metals - MB

Sample ID: PQ47544-001

Matrix: Aqueous

Batch: 47544

Analytical Method: SM 3500-Fe B-2011

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Ferrous Iron	ND		1	0.050	0.024	mg/L	05/22/2014 2021

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47544-002

Matrix: Aqueous

Batch: 47544

Analytical Method: SM 3500-Fe B-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Ferrous Iron	0.91	0.98		1	107	90-110	05/22/2014 2021

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: PQ47544-003

Matrix: Aqueous

Batch: 47544

Analytical Method: SM 3500-Fe B-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Ferrous Iron	0.91	0.98		1	107	0.00	90-110	20	05/22/2014 2021

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: PE22065-004MS

Matrix: Aqueous

Batch: 47544

Analytical Method: SM 3500-Fe B-2011

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Ferrous Iron	0.38	0.91	1.2		1	93	70-130	05/22/2014 2021

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Page: 61 of 109

Level 1 Report v2.1

Inorganic non-metals - MSD

Sample ID: PE22065-004MD

Matrix: Aqueous

Batch: 47544

Analytical Method: SM 3500-Fe B-2011

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Ferrous Iron	0.38	0.91	1.2		1	93	0.00	70-130	20	05/22/2014 2021

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47793-001

Matrix: Aqueous

Batch: 47793

Analytical Method: 353.2

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Nitrite - N	ND		1	0.020	0.0034	mg/L	05/22/2014 1649

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47793-002

Matrix: Aqueous

Batch: 47793

Analytical Method: 353.2

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrite - N	0.40	0.40		1	99	90-110	05/22/2014 1652

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: PE22065-004MS

Matrix: Aqueous

Batch: 47793

Analytical Method: 353.2

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrite - N	ND	0.40	0.30		1	74	70-130	05/22/2014 2154

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: PE22065-004MD

Matrix: Aqueous

Batch: 47793

Analytical Method: 353.2

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrite - N	ND	0.40	0.30		1	75	0.34	70-130	20	05/22/2014 2155

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47832-001

Matrix: Aqueous

Batch: 47832

Analytical Method: 300.0

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Bromide	ND		1	0.20	0.041	mg/L	05/28/2014 1259

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47832-002

Matrix: Aqueous

Batch: 47832

Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	05/28/2014 1323

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47833-001

Matrix: Aqueous

Batch: 47833

Analytical Method: 300.0

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Chloride	ND		1	1.0	0.11	mg/L	05/28/2014 1259

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47833-002

Matrix: Aqueous

Batch: 47833

Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	98	90-110	05/28/2014 1323

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47834-001

Matrix: Aqueous

Batch: 47834

Analytical Method: 300.0

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Sulfate	ND		1	1.0	0.28	mg/L	05/28/2014 1259

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47834-002

Matrix: Aqueous

Batch: 47834

Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	22		1	108	90-110	05/28/2014 1323

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47842-001

Matrix: Aqueous

Batch: 47842

Analytical Method: 353.2

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0013	mg/L	05/22/2014 1620

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47842-002

Matrix: Aqueous

Batch: 47842

Analytical Method: 353.2

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	05/22/2014 1623

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: PE22065-004MS

Matrix: Aqueous

Batch: 47842

Analytical Method: 353.2

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.10	0.80	0.76	N	1	82	90-110	05/22/2014 2154

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: PE22065-004MD

Matrix: Aqueous

Batch: 47842

Analytical Method: 353.2

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.10	0.80	0.76	N	1	81	0.26	90-110	20	05/22/2014 2155

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ47926-001

Matrix: Aqueous

Batch: 47926

Analytical Method: SM 2320B-2011

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Alkalinity	ND		1	10	3.9	mg/L	05/25/2014 0112

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ47926-002

Matrix: Aqueous

Batch: 47926

Analytical Method: SM 2320B-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	93		1	93	90-110	05/25/2014 0117

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ48131-001

Matrix: Aqueous

Batch: 48131

Analytical Method: SM 4500-S2 F-2011

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Sulfide	ND		1	1.0	0.62	mg/L	05/28/2014 0814

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: PQ48131-002

Matrix: Aqueous

Batch: 48131

Analytical Method: SM 4500-S2 F-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.2		1	92	80-120	05/28/2014 0814

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: PQ48131-003

Matrix: Aqueous

Batch: 48131

Analytical Method: SM 4500-S2 F-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.4		1	94	2.2	80-120	20	05/28/2014 0814

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ48500-001

Matrix: Aqueous

Batch: 48500

Analytical Method: SM 5310C-2011

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
TOC	ND		1	1.0	0.093	mg/L	06/04/2014 1913

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Page: 82 of 109
Level 1 Report v2.1

Inorganic non-metals - LCS

Sample ID: PQ48500-002

Matrix: Aqueous

Batch: 48500

Analytical Method: SM 5310C-2011

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	20		1	100	90-110	06/04/2014 1929

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: PE22065-001MS

Matrix: Aqueous

Batch: 48500

Analytical Method: SM 5310C-2011

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	1.1	20	21		1	99	70-130	06/04/2014 2117

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: PE22065-001MD

Matrix: Aqueous

Batch: 48500

Analytical Method: SM 5310C-2011

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	1.1	20	21		1	99	0.37	70-130	20	06/04/2014 2136

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47348-001

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/22/2014 2207
Benzene	ND		1	5.0	1.1	ug/kg	05/22/2014 2207
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
Bromoform	ND		1	5.0	0.70	ug/kg	05/22/2014 2207
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/22/2014 2207
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/22/2014 2207
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/22/2014 2207
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/22/2014 2207
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
Chloroethane	ND		1	5.0	1.3	ug/kg	05/22/2014 2207
Chloroform	ND		1	5.0	0.83	ug/kg	05/22/2014 2207
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/22/2014 2207
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/22/2014 2207
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/22/2014 2207
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/22/2014 2207
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/22/2014 2207
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/22/2014 2207
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/22/2014 2207
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/22/2014 2207
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/22/2014 2207
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/22/2014 2207
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/22/2014 2207
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/22/2014 2207
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
2-Hexanone	ND		1	10	1.3	ug/kg	05/22/2014 2207
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/22/2014 2207
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/22/2014 2207
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/22/2014 2207
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/22/2014 2207
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/22/2014 2207
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/22/2014 2207
Styrene	ND		1	5.0	1.1	ug/kg	05/22/2014 2207
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/22/2014 2207
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/22/2014 2207
Toluene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/22/2014 2207
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/22/2014 2207
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/22/2014 2207
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/22/2014 2207

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47348-001

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/22/2014 2207
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/22/2014 2207
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/22/2014 2207
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/22/2014 2207
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		90	47-138				
1,2-Dichloroethane-d4		90	53-142				
Toluene-d8		94	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47348-002

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	125	60-140	05/22/2014 2033
Benzene	50	48		1	96	69-123	05/22/2014 2033
Bromodichloromethane	50	49		1	98	69-121	05/22/2014 2033
Bromoform	50	50		1	100	61-119	05/22/2014 2033
Bromomethane (Methyl bromide)	50	43		1	87	10-168	05/22/2014 2033
2-Butanone (MEK)	100	110		1	112	57-148	05/22/2014 2033
Carbon disulfide	50	42		1	84	58-122	05/22/2014 2033
Carbon tetrachloride	50	46		1	92	58-136	05/22/2014 2033
Chlorobenzene	50	49		1	97	59-129	05/22/2014 2033
Chloroethane	50	44		1	89	42-163	05/22/2014 2033
Chloroform	50	47		1	93	71-125	05/22/2014 2033
Chloromethane (Methyl chloride)	50	43		1	87	34-134	05/22/2014 2033
Cyclohexane	50	45		1	90	53-139	05/22/2014 2033
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	103	55-125	05/22/2014 2033
Dibromochloromethane	50	50		1	100	66-119	05/22/2014 2033
1,2-Dibromoethane (EDB)	50	50		1	100	74-124	05/22/2014 2033
1,4-Dichlorobenzene	50	49		1	98	52-133	05/22/2014 2033
1,3-Dichlorobenzene	50	50		1	100	51-134	05/22/2014 2033
1,2-Dichlorobenzene	50	50		1	101	57-131	05/22/2014 2033
Dichlorodifluoromethane	50	42		1	85	10-157	05/22/2014 2033
1,2-Dichloroethane	50	48		1	97	67-129	05/22/2014 2033
1,1-Dichloroethane	50	47		1	95	71-127	05/22/2014 2033
trans-1,2-Dichloroethene	50	46		1	93	68-131	05/22/2014 2033
cis-1,2-Dichloroethene	50	47		1	95	70-122	05/22/2014 2033
1,1-Dichloroethene	50	45		1	89	69-138	05/22/2014 2033
1,2-Dichloropropane	50	47		1	94	72-124	05/22/2014 2033
trans-1,3-Dichloropropene	50	51		1	103	70-124	05/22/2014 2033
cis-1,3-Dichloropropene	50	49		1	99	70-126	05/22/2014 2033
Ethylbenzene	50	50		1	100	59-128	05/22/2014 2033
2-Hexanone	100	110		1	113	54-137	05/22/2014 2033
Isopropylbenzene	50	52		1	104	50-136	05/22/2014 2033
Methyl acetate	50	53		1	106	59-137	05/22/2014 2033
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	05/22/2014 2033
4-Methyl-2-pentanone	100	110		1	110	60-134	05/22/2014 2033
Methylcyclohexane	50	46		1	91	41-144	05/22/2014 2033
Methylene chloride	50	45		1	89	70-130	05/22/2014 2033
Styrene	50	51		1	101	54-136	05/22/2014 2033
1,1,2,2-Tetrachloroethane	50	53		1	106	69-132	05/22/2014 2033
Tetrachloroethene	50	48		1	96	45-150	05/22/2014 2033
Toluene	50	47		1	94	61-129	05/22/2014 2033
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	49-136	05/22/2014 2033
1,2,4-Trichlorobenzene	50	50		1	100	34-145	05/22/2014 2033
1,1,2-Trichloroethane	50	48		1	97	55-128	05/22/2014 2033
1,1,1-Trichloroethane	50	47		1	94	63-128	05/22/2014 2033

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47348-002

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	62-126	05/22/2014 2033
Trichlorofluoromethane	50	46		1	92	45-138	05/22/2014 2033
Vinyl chloride	50	45		1	89	42-132	05/22/2014 2033
Xylenes (total)	100	100		1	102	58-128	05/22/2014 2033
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	47-138				
1,2-Dichloroethane-d4		92	53-142				
Toluene-d8		95	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47348-003

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	114	8.9	60-140	20	05/22/2014 2056
Benzene	50	46		1	92	3.9	69-123	20	05/22/2014 2056
Bromodichloromethane	50	46		1	92	5.9	69-121	20	05/22/2014 2056
Bromoform	50	48		1	96	4.5	61-119	20	05/22/2014 2056
Bromomethane (Methyl bromide)	50	39		1	79	9.3	10-168	20	05/22/2014 2056
2-Butanone (MEK)	100	110		1	108	4.0	57-148	20	05/22/2014 2056
Carbon disulfide	50	38		1	77	8.5	58-122	20	05/22/2014 2056
Carbon tetrachloride	50	43		1	87	5.7	58-136	20	05/22/2014 2056
Chlorobenzene	50	47		1	95	2.9	59-129	20	05/22/2014 2056
Chloroethane	50	42		1	84	5.8	42-163	20	05/22/2014 2056
Chloroform	50	44		1	88	5.5	71-125	20	05/22/2014 2056
Chloromethane (Methyl chloride)	50	42		1	83	4.5	34-134	20	05/22/2014 2056
Cyclohexane	50	43		1	85	5.2	53-139	20	05/22/2014 2056
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	2.6	55-125	20	05/22/2014 2056
Dibromochloromethane	50	47		1	94	6.4	66-119	20	05/22/2014 2056
1,2-Dibromoethane (EDB)	50	48		1	96	3.5	74-124	20	05/22/2014 2056
1,4-Dichlorobenzene	50	49		1	99	0.35	52-133	20	05/22/2014 2056
1,3-Dichlorobenzene	50	49		1	97	3.2	51-134	20	05/22/2014 2056
1,2-Dichlorobenzene	50	49		1	99	2.0	57-131	20	05/22/2014 2056
Dichlorodifluoromethane	50	41		1	82	3.6	10-157	20	05/22/2014 2056
1,2-Dichloroethane	50	46		1	93	4.3	67-129	20	05/22/2014 2056
1,1-Dichloroethane	50	44		1	89	6.3	71-127	20	05/22/2014 2056
trans-1,2-Dichloroethene	50	44		1	87	6.5	68-131	20	05/22/2014 2056
cis-1,2-Dichloroethene	50	45		1	89	6.2	70-122	20	05/22/2014 2056
1,1-Dichloroethene	50	40		1	79	12	69-138	20	05/22/2014 2056
1,2-Dichloropropane	50	46		1	93	1.3	72-124	20	05/22/2014 2056
trans-1,3-Dichloropropene	50	49		1	98	4.5	70-124	20	05/22/2014 2056
cis-1,3-Dichloropropene	50	48		1	95	3.7	70-126	20	05/22/2014 2056
Ethylbenzene	50	46		1	91	8.8	59-128	20	05/22/2014 2056
2-Hexanone	100	110		1	114	1.1	54-137	20	05/22/2014 2056
Isopropylbenzene	50	49		1	98	6.3	50-136	20	05/22/2014 2056
Methyl acetate	50	50		1	100	5.6	59-137	20	05/22/2014 2056
Methyl tertiary butyl ether (MTBE)	50	47		1	93	1.9	70-130	20	05/22/2014 2056
4-Methyl-2-pentanone	100	110		1	109	1.4	60-134	20	05/22/2014 2056
Methylcyclohexane	50	43		1	86	6.3	41-144	20	05/22/2014 2056
Methylene chloride	50	42		1	83	7.2	70-130	20	05/22/2014 2056
Styrene	50	49		1	98	3.9	54-136	20	05/22/2014 2056
1,1,2,2-Tetrachloroethane	50	53		1	105	0.45	69-132	20	05/22/2014 2056
Tetrachloroethene	50	46		1	91	4.6	45-150	20	05/22/2014 2056
Toluene	50	46		1	91	2.4	61-129	20	05/22/2014 2056
1,1,2-Trichloro-1,1,2-Trifluoroethane	50	48		1	96	3.7	49-136	20	05/22/2014 2056
1,2,4-Trichlorobenzene	50	51		1	101	1.2	34-145	20	05/22/2014 2056
1,1,2-Trichloroethane	50	47		1	93	3.7	55-128	20	05/22/2014 2056
1,1,1-Trichloroethane	50	45		1	90	4.6	63-128	20	05/22/2014 2056

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47348-003

Matrix: Solid

Batch: 47348

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	44		1	89	5.5	62-126	20	05/22/2014 2056
Trichlorofluoromethane	50	42		1	84	8.3	45-138	20	05/22/2014 2056
Vinyl chloride	50	42		1	83	6.7	42-132	20	05/22/2014 2056
Xylenes (total)	100	95		1	95	6.6	58-128	20	05/22/2014 2056
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		95	47-138						
1,2-Dichloroethane-d4		91	53-142						
Toluene-d8		96	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47387-001

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	05/23/2014 1143
Benzene	ND		1	5.0	0.20	ug/L	05/23/2014 1143
Bromodichloromethane	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Bromoform	ND		1	5.0	0.40	ug/L	05/23/2014 1143
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	05/23/2014 1143
2-Butanone (MEK)	ND		1	10	1.8	ug/L	05/23/2014 1143
Carbon disulfide	ND		1	5.0	0.30	ug/L	05/23/2014 1143
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	05/23/2014 1143
Chlorobenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Chloroethane	ND		1	5.0	0.50	ug/L	05/23/2014 1143
Chloroform	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	05/23/2014 1143
Cyclohexane	ND		1	5.0	0.98	ug/L	05/23/2014 1143
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	05/23/2014 1143
Dibromochloromethane	ND		1	5.0	1.7	ug/L	05/23/2014 1143
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	05/23/2014 1143
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	05/23/2014 1143
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	05/23/2014 1143
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	05/23/2014 1143
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	05/23/2014 1143
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	05/23/2014 1143
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	05/23/2014 1143
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	05/23/2014 1143
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/23/2014 1143
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/23/2014 1143
Ethylbenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
2-Hexanone	ND		1	10	1.0	ug/L	05/23/2014 1143
Isopropylbenzene	ND		1	5.0	1.0	ug/L	05/23/2014 1143
Methyl acetate	ND		1	5.0	0.72	ug/L	05/23/2014 1143
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	05/23/2014 1143
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	05/23/2014 1143
Methylcyclohexane	ND		1	5.0	0.95	ug/L	05/23/2014 1143
Methylene chloride	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Styrene	ND		1	5.0	0.10	ug/L	05/23/2014 1143
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	05/23/2014 1143
Tetrachloroethene	ND		1	5.0	0.40	ug/L	05/23/2014 1143
Toluene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	05/23/2014 1143
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	05/23/2014 1143
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	05/23/2014 1143
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	05/23/2014 1143

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47387-001

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	05/23/2014 1143
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	05/23/2014 1143
Vinyl chloride	ND		1	2.0	0.10	ug/L	05/23/2014 1143
Xylenes (total)	ND		1	5.0	1.7	ug/L	05/23/2014 1143
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		99	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47387-002

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	122	60-140	05/23/2014 1008
Benzene	50	51		1	101	70-130	05/23/2014 1008
Bromodichloromethane	50	49		1	98	70-130	05/23/2014 1008
Bromoform	50	47		1	94	70-130	05/23/2014 1008
Bromomethane (Methyl bromide)	50	42		1	85	60-140	05/23/2014 1008
2-Butanone (MEK)	100	110		1	112	60-140	05/23/2014 1008
Carbon disulfide	50	47		1	94	60-140	05/23/2014 1008
Carbon tetrachloride	50	47		1	94	70-130	05/23/2014 1008
Chlorobenzene	50	50		1	100	70-130	05/23/2014 1008
Chloroethane	50	47		1	94	42-163	05/23/2014 1008
Chloroform	50	49		1	99	70-130	05/23/2014 1008
Chloromethane (Methyl chloride)	50	46		1	92	60-140	05/23/2014 1008
Cyclohexane	50	51		1	102	70-130	05/23/2014 1008
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	99	70-130	05/23/2014 1008
Dibromochloromethane	50	48		1	97	70-130	05/23/2014 1008
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	05/23/2014 1008
1,3-Dichlorobenzene	50	49		1	98	70-130	05/23/2014 1008
1,4-Dichlorobenzene	50	48		1	97	70-130	05/23/2014 1008
1,2-Dichlorobenzene	50	48		1	96	70-130	05/23/2014 1008
Dichlorodifluoromethane	50	44		1	88	60-140	05/23/2014 1008
1,1-Dichloroethane	50	50		1	100	70-130	05/23/2014 1008
1,2-Dichloroethane	50	50		1	100	70-130	05/23/2014 1008
cis-1,2-Dichloroethene	50	50		1	100	70-130	05/23/2014 1008
trans-1,2-Dichloroethene	50	50		1	99	70-130	05/23/2014 1008
1,1-Dichloroethene	50	47		1	94	70-130	05/23/2014 1008
1,2-Dichloropropane	50	51		1	103	70-130	05/23/2014 1008
cis-1,3-Dichloropropene	50	53		1	106	70-130	05/23/2014 1008
trans-1,3-Dichloropropene	50	53		1	107	70-130	05/23/2014 1008
Ethylbenzene	50	51		1	101	70-130	05/23/2014 1008
2-Hexanone	100	110		1	112	60-140	05/23/2014 1008
Isopropylbenzene	50	52		1	104	70-130	05/23/2014 1008
Methyl acetate	50	56		1	112	70-130	05/23/2014 1008
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	05/23/2014 1008
4-Methyl-2-pentanone	100	110		1	108	60-140	05/23/2014 1008
Methylcyclohexane	50	49		1	97	70-130	05/23/2014 1008
Methylene chloride	50	45		1	91	70-130	05/23/2014 1008
Styrene	50	50		1	101	70-130	05/23/2014 1008
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	05/23/2014 1008
Tetrachloroethene	50	46		1	92	70-130	05/23/2014 1008
Toluene	50	51		1	102	70-130	05/23/2014 1008
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	108	70-130	05/23/2014 1008
1,2,4-Trichlorobenzene	50	48		1	97	70-130	05/23/2014 1008
1,1,1-Trichloroethane	50	48		1	96	70-130	05/23/2014 1008
1,1,2-Trichloroethane	50	50		1	100	70-130	05/23/2014 1008

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47387-002

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	05/23/2014 1008
Trichlorofluoromethane	50	50		1	99	70-130	05/23/2014 1008
Vinyl chloride	50	45		1	89	70-130	05/23/2014 1008
Xylenes (total)	100	100		1	100	70-130	05/23/2014 1008
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		102	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		108	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47387-003

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	110	9.8	60-140	20	05/23/2014 1032
Benzene	50	49		1	97	3.9	70-130	20	05/23/2014 1032
Bromodichloromethane	50	48		1	96	2.8	70-130	20	05/23/2014 1032
Bromoform	50	47		1	93	0.58	70-130	20	05/23/2014 1032
Bromomethane (Methyl bromide)	50	42		1	85	0.045	60-140	20	05/23/2014 1032
2-Butanone (MEK)	100	110		1	113	0.32	60-140	20	05/23/2014 1032
Carbon disulfide	50	46		1	91	3.3	60-140	20	05/23/2014 1032
Carbon tetrachloride	50	47		1	94	0.24	70-130	20	05/23/2014 1032
Chlorobenzene	50	49		1	98	2.0	70-130	20	05/23/2014 1032
Chloroethane	50	47		1	94	0.56	42-163	20	05/23/2014 1032
Chloroform	50	49		1	97	1.5	70-130	20	05/23/2014 1032
Chloromethane (Methyl chloride)	50	44		1	89	3.9	60-140	20	05/23/2014 1032
Cyclohexane	50	49		1	99	2.7	70-130	20	05/23/2014 1032
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	0.69	70-130	20	05/23/2014 1032
Dibromochloromethane	50	48		1	96	0.76	70-130	20	05/23/2014 1032
1,2-Dibromoethane (EDB)	50	50		1	100	0.29	70-130	20	05/23/2014 1032
1,3-Dichlorobenzene	50	49		1	97	0.56	70-130	20	05/23/2014 1032
1,4-Dichlorobenzene	50	48		1	96	0.25	70-130	20	05/23/2014 1032
1,2-Dichlorobenzene	50	48		1	96	0.53	70-130	20	05/23/2014 1032
Dichlorodifluoromethane	50	43		1	87	1.6	60-140	20	05/23/2014 1032
1,1-Dichloroethane	50	49		1	98	2.5	70-130	20	05/23/2014 1032
1,2-Dichloroethane	50	49		1	98	2.3	70-130	20	05/23/2014 1032
cis-1,2-Dichloroethene	50	49		1	98	2.1	70-130	20	05/23/2014 1032
trans-1,2-Dichloroethene	50	48		1	97	2.4	70-130	20	05/23/2014 1032
1,1-Dichloroethene	50	47		1	94	0.37	70-130	20	05/23/2014 1032
1,2-Dichloropropane	50	50		1	100	2.5	70-130	20	05/23/2014 1032
cis-1,3-Dichloropropene	50	52		1	104	1.7	70-130	20	05/23/2014 1032
trans-1,3-Dichloropropene	50	53		1	106	0.56	70-130	20	05/23/2014 1032
Ethylbenzene	50	50		1	100	1.1	70-130	20	05/23/2014 1032
2-Hexanone	100	110		1	113	0.62	60-140	20	05/23/2014 1032
Isopropylbenzene	50	52		1	104	0.058	70-130	20	05/23/2014 1032
Methyl acetate	50	55		1	110	2.0	70-130	20	05/23/2014 1032
Methyl tertiary butyl ether (MTBE)	50	49		1	98	0.97	70-130	20	05/23/2014 1032
4-Methyl-2-pentanone	100	110		1	107	1.1	60-140	20	05/23/2014 1032
Methylcyclohexane	50	48		1	96	0.65	70-130	20	05/23/2014 1032
Methylene chloride	50	45		1	89	1.8	70-130	20	05/23/2014 1032
Styrene	50	50		1	99	1.6	70-130	20	05/23/2014 1032
1,1,2,2-Tetrachloroethane	50	53		1	107	0.65	70-130	20	05/23/2014 1032
Tetrachloroethene	50	45		1	91	1.2	70-130	20	05/23/2014 1032
Toluene	50	50		1	100	2.1	70-130	20	05/23/2014 1032
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	108	0.45	70-130	20	05/23/2014 1032
1,2,4-Trichlorobenzene	50	47		1	93	3.4	70-130	20	05/23/2014 1032
1,1,1-Trichloroethane	50	47		1	95	1.5	70-130	20	05/23/2014 1032
1,1,2-Trichloroethane	50	50		1	100	0.15	70-130	20	05/23/2014 1032

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47387-003

Matrix: Aqueous

Batch: 47387

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	46		1	92	3.8	70-130	20	05/23/2014 1032
Trichlorofluoromethane	50	48		1	97	2.6	70-130	20	05/23/2014 1032
Vinyl chloride	50	45		1	89	0.038	70-130	20	05/23/2014 1032
Xylenes (total)	100	100		1	100	0.51	70-130	20	05/23/2014 1032
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		101	70-130						
1,2-Dichloroethane-d4		97	70-130						
Toluene-d8		104	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47406-001

Matrix: Solid

Batch: 47406

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/23/2014 1208
Benzene	ND		1	5.0	1.1	ug/kg	05/23/2014 1208
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
Bromoform	ND		1	5.0	0.70	ug/kg	05/23/2014 1208
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/23/2014 1208
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/23/2014 1208
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/23/2014 1208
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/23/2014 1208
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
Chloroethane	ND		1	5.0	1.3	ug/kg	05/23/2014 1208
Chloroform	ND		1	5.0	0.83	ug/kg	05/23/2014 1208
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/23/2014 1208
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/23/2014 1208
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/23/2014 1208
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/23/2014 1208
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/23/2014 1208
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/23/2014 1208
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/23/2014 1208
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/23/2014 1208
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/23/2014 1208
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/23/2014 1208
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/23/2014 1208
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/23/2014 1208
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
2-Hexanone	ND		1	10	1.3	ug/kg	05/23/2014 1208
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/23/2014 1208
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/23/2014 1208
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/23/2014 1208
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/23/2014 1208
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/23/2014 1208
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/23/2014 1208
Styrene	ND		1	5.0	1.1	ug/kg	05/23/2014 1208
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/23/2014 1208
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/23/2014 1208
Toluene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/23/2014 1208
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/23/2014 1208
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/23/2014 1208
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/23/2014 1208

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47406-001

Matrix: Solid

Batch: 47406

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/23/2014 1208
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/23/2014 1208
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/23/2014 1208
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/23/2014 1208
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	47-138				
1,2-Dichloroethane-d4		94	53-142				
Toluene-d8		97	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47406-002

Matrix: Solid

Batch: 47406

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	131	60-140	05/23/2014 1035
Benzene	50	50		1	99	69-123	05/23/2014 1035
Bromodichloromethane	50	49		1	98	69-121	05/23/2014 1035
Bromoform	50	48		1	96	61-119	05/23/2014 1035
Bromomethane (Methyl bromide)	50	51		1	101	10-168	05/23/2014 1035
2-Butanone (MEK)	100	110		1	109	57-148	05/23/2014 1035
Carbon disulfide	50	49		1	98	58-122	05/23/2014 1035
Carbon tetrachloride	50	50		1	101	58-136	05/23/2014 1035
Chlorobenzene	50	50		1	99	59-129	05/23/2014 1035
Chloroethane	50	51		1	102	42-163	05/23/2014 1035
Chloroform	50	49		1	99	71-125	05/23/2014 1035
Chloromethane (Methyl chloride)	50	51		1	103	34-134	05/23/2014 1035
Cyclohexane	50	51		1	101	53-139	05/23/2014 1035
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	55-125	05/23/2014 1035
Dibromochloromethane	50	49		1	99	66-119	05/23/2014 1035
1,2-Dibromoethane (EDB)	50	48		1	96	74-124	05/23/2014 1035
1,2-Dichlorobenzene	50	52		1	105	57-131	05/23/2014 1035
1,4-Dichlorobenzene	50	52		1	103	52-133	05/23/2014 1035
1,3-Dichlorobenzene	50	50		1	101	51-134	05/23/2014 1035
Dichlorodifluoromethane	50	54		1	108	10-157	05/23/2014 1035
1,1-Dichloroethane	50	50		1	100	71-127	05/23/2014 1035
1,2-Dichloroethane	50	48		1	97	67-129	05/23/2014 1035
1,1-Dichloroethene	50	49		1	99	69-138	05/23/2014 1035
cis-1,2-Dichloroethene	50	50		1	100	70-122	05/23/2014 1035
trans-1,2-Dichloroethene	50	49		1	99	68-131	05/23/2014 1035
1,2-Dichloropropane	50	49		1	98	72-124	05/23/2014 1035
cis-1,3-Dichloropropene	50	49		1	98	70-126	05/23/2014 1035
trans-1,3-Dichloropropene	50	50		1	99	70-124	05/23/2014 1035
Ethylbenzene	50	50		1	99	59-128	05/23/2014 1035
2-Hexanone	100	100		1	104	54-137	05/23/2014 1035
Isopropylbenzene	50	54		1	109	50-136	05/23/2014 1035
Methyl acetate	50	54		1	108	59-137	05/23/2014 1035
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	05/23/2014 1035
4-Methyl-2-pentanone	100	100		1	104	60-134	05/23/2014 1035
Methylcyclohexane	50	52		1	103	41-144	05/23/2014 1035
Methylene chloride	50	50		1	100	70-130	05/23/2014 1035
Styrene	50	50		1	99	54-136	05/23/2014 1035
1,1,2,2-Tetrachloroethane	50	53		1	106	69-132	05/23/2014 1035
Tetrachloroethene	50	48		1	96	45-150	05/23/2014 1035
Toluene	50	50		1	100	61-129	05/23/2014 1035
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	117	49-136	05/23/2014 1035
1,2,4-Trichlorobenzene	50	53		1	106	34-145	05/23/2014 1035
1,1,2-Trichloroethane	50	48		1	97	55-128	05/23/2014 1035
1,1,1-Trichloroethane	50	51		1	101	63-128	05/23/2014 1035

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47406-002

Matrix: Solid

Batch: 47406

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	97	62-126	05/23/2014 1035
Trichlorofluoromethane	50	52		1	105	45-138	05/23/2014 1035
Vinyl chloride	50	52		1	104	42-132	05/23/2014 1035
Xylenes (total)	100	100		1	103	58-128	05/23/2014 1035
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		90	47-138				
1,2-Dichloroethane-d4		91	53-142				
Toluene-d8		98	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47406-003

Batch: 47406

Matrix: Solid

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	123	6.3	60-140	20	05/23/2014 1059
Benzene	50	48		1	96	2.7	69-123	20	05/23/2014 1059
Bromodichloromethane	50	48		1	96	1.6	69-121	20	05/23/2014 1059
Bromoform	50	48		1	97	0.94	61-119	20	05/23/2014 1059
Bromomethane (Methyl bromide)	50	46		1	93	8.6	10-168	20	05/23/2014 1059
2-Butanone (MEK)	100	110		1	106	2.7	57-148	20	05/23/2014 1059
Carbon disulfide	50	46		1	92	7.0	58-122	20	05/23/2014 1059
Carbon tetrachloride	50	47		1	94	7.1	58-136	20	05/23/2014 1059
Chlorobenzene	50	50		1	100	0.44	59-129	20	05/23/2014 1059
Chloroethane	50	48		1	95	7.2	42-163	20	05/23/2014 1059
Chloroform	50	47		1	94	5.0	71-125	20	05/23/2014 1059
Chloromethane (Methyl chloride)	50	49		1	98	4.3	34-134	20	05/23/2014 1059
Cyclohexane	50	48		1	95	6.2	53-139	20	05/23/2014 1059
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	2.2	55-125	20	05/23/2014 1059
Dibromochloromethane	50	50		1	100	0.99	66-119	20	05/23/2014 1059
1,2-Dibromoethane (EDB)	50	48		1	97	1.2	74-124	20	05/23/2014 1059
1,2-Dichlorobenzene	50	50		1	100	4.5	57-131	20	05/23/2014 1059
1,4-Dichlorobenzene	50	51		1	103	0.54	52-133	20	05/23/2014 1059
1,3-Dichlorobenzene	50	49		1	99	1.9	51-134	20	05/23/2014 1059
Dichlorodifluoromethane	50	50		1	99	8.9	10-157	20	05/23/2014 1059
1,1-Dichloroethane	50	47		1	95	5.6	71-127	20	05/23/2014 1059
1,2-Dichloroethane	50	47		1	94	2.3	67-129	20	05/23/2014 1059
1,1-Dichloroethene	50	47		1	93	5.6	69-138	20	05/23/2014 1059
cis-1,2-Dichloroethene	50	47		1	93	7.1	70-122	20	05/23/2014 1059
trans-1,2-Dichloroethene	50	47		1	94	5.2	68-131	20	05/23/2014 1059
1,2-Dichloropropane	50	48		1	97	1.6	72-124	20	05/23/2014 1059
cis-1,3-Dichloropropene	50	49		1	98	0.72	70-126	20	05/23/2014 1059
trans-1,3-Dichloropropene	50	50		1	100	1.1	70-124	20	05/23/2014 1059
Ethylbenzene	50	49		1	98	0.86	59-128	20	05/23/2014 1059
2-Hexanone	100	110		1	107	2.1	54-137	20	05/23/2014 1059
Isopropylbenzene	50	51		1	101	7.3	50-136	20	05/23/2014 1059
Methyl acetate	50	52		1	103	4.2	59-137	20	05/23/2014 1059
Methyl tertiary butyl ether (MTBE)	50	47		1	94	4.4	70-130	20	05/23/2014 1059
4-Methyl-2-pentanone	100	99		1	99	4.2	60-134	20	05/23/2014 1059
Methylcyclohexane	50	49		1	97	5.6	41-144	20	05/23/2014 1059
Methylene chloride	50	47		1	93	6.6	70-130	20	05/23/2014 1059
Styrene	50	49		1	98	1.2	54-136	20	05/23/2014 1059
1,1,2,2-Tetrachloroethane	50	52		1	104	2.0	69-132	20	05/23/2014 1059
Tetrachloroethene	50	50		1	99	3.0	45-150	20	05/23/2014 1059
Toluene	50	49		1	98	2.3	61-129	20	05/23/2014 1059
1,1,2-Trichloro-1,1,2-Trifluoroethane	50	55		1	110	6.4	49-136	20	05/23/2014 1059
1,2,4-Trichlorobenzene	50	51		1	101	4.2	34-145	20	05/23/2014 1059
1,1,2-Trichloroethane	50	48		1	96	0.71	55-128	20	05/23/2014 1059
1,1,1-Trichloroethane	50	48		1	95	6.2	63-128	20	05/23/2014 1059

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47406-003

Matrix: Solid

Batch: 47406

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	46		1	93	4.9	62-126	20	05/23/2014 1059
Trichlorofluoromethane	50	48		1	97	8.2	45-138	20	05/23/2014 1059
Vinyl chloride	50	47		1	95	8.7	42-132	20	05/23/2014 1059
Xylenes (total)	100	100		1	100	3.0	58-128	20	05/23/2014 1059
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		94	47-138						
1,2-Dichloroethane-d4		88	53-142						
Toluene-d8		94	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: PQ47531-001

Batch: 47531

Analytical Method: 6010C

Matrix: Aqueous

Prep Method: 3005A

Prep Date: 05/27/2014 1400

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Iron	ND		1	0.10	0.023	mg/L	05/28/2014 0519
Manganese	ND		1	0.015	0.0049	mg/L	05/28/2014 0519

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Page: 104 of 109
Level 1 Report v2.1

ICP-AES - LCS

Sample ID: PQ47531-002

Matrix: Aqueous

Batch: 47531

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 05/27/2014 1400

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	21		1	105	80-120	05/28/2014 0523
Manganese	2.0	2.1		1	105	80-120	05/28/2014 0523

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: PQ47531-003

Matrix: Aqueous

Batch: 47531

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 05/27/2014 1400

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	22		1	110	4.3	80-120	20	05/28/2014 0526
Manganese	2.0	2.1		1	107	1.9	80-120	20	05/28/2014 0526

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: PQ47531-001

Batch: 47531

Analytical Method: 6010C

Matrix: Aqueous

Prep Method: 3005A

Prep Date: 05/27/2014 1400

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Dissolved Iron	ND		1	0.10	0.023	mg/L	05/28/2014 0519
Dissolved Manganese	ND		1	0.015	0.0049	mg/L	05/28/2014 0519

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.

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Page: 107 of 109
Level 1 Report v2.1

ICP-AES - LCS

Sample ID: PQ47531-002

Matrix: Aqueous

Batch: 47531

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 05/27/2014 1400

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dissolved Iron	20	21		1	105	80-120	05/28/2014 0523
Dissolved Manganese	2.0	2.1		1	105	80-120	05/28/2014 0523

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: PQ47531-003

Matrix: Aqueous

Batch: 47531

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 05/27/2014 1400

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dissolved Iron	20	22		1	110	4.3	80-120	20	05/28/2014 0526
Dissolved Manganese	2.0	2.1		1	107	1.9	80-120	20	05/28/2014 0526

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Accum Cooler Inspected by/date: KUP/5-22-14 Lot #: PE2206S

Means of receipt: <input checked="" type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		1. Were custody seals present on the cooler?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>136318-5 18.6</u> °C / <u>1</u> °C / <u>1</u> °C / <u>1</u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>-0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>SRC</u> phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	<u>1 vial</u>	16. Were any samples containers missing?
Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	<u>3 vials</u>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>		18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		21. Were all applicable NH ₃ /TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>KUP</u> Verified by: _____ Date: <u>5-22-14</u>		

Comments: Received 2 MeOH vials labeled at B-28-6 with same time
Did Not Receive vial for MeOH for B-28-10

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.5**

Lot Number: **PE23029**

Date Completed: **05/29/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE23029 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE23029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE23029

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-29-4	Solid	05/23/2014 1020	05/23/2014
002	B-29-10	Solid	05/23/2014 1040	05/23/2014
003	B-29-14	Solid	05/23/2014 1050	05/23/2014
004	B-29-18	Solid	05/23/2014 1030	05/23/2014
005	B-29-18 (DUP)	Solid	05/23/2014 1030	05/23/2014
006	B-30-6	Solid	05/23/2014 1215	05/23/2014
007	B-30-10	Solid	05/23/2014 1220	05/23/2014
008	B-30-14	Solid	05/23/2014 1225	05/23/2014
009	B-30-18	Solid	05/23/2014 1232	05/23/2014

(9 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE23029

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	B-29-4	Solid	Acetone	8260B	15	J	ug/kg	5
001	B-29-4	Solid	Styrene	8260B	1.7	J	ug/kg	5
002	B-29-10	Solid	Acetone	8260B	140		ug/kg	7
002	B-29-10	Solid	cis-1,2-Dichloroethene	8260B	93		ug/kg	7
002	B-29-10	Solid	trans-1,2-Dichloroethene	8260B	18		ug/kg	7
002	B-29-10	Solid	Styrene	8260B	1.3	J	ug/kg	7
002	B-29-10	Solid	Tetrachloroethene	8260B	1.2	J	ug/kg	7
002	B-29-10	Solid	Trichloroethene	8260B	32		ug/kg	8
003	B-29-14	Solid	1,1-Dichloroethene	8260B	2.2	J	ug/kg	9
003	B-29-14	Solid	cis-1,2-Dichloroethene	8260B	260	J	ug/kg	9
003	B-29-14	Solid	trans-1,2-Dichloroethene	8260B	13		ug/kg	9
003	B-29-14	Solid	Trichloroethene	8260B	120		ug/kg	10
004	B-29-18	Solid	1,1-Dichloroethene	8260B	3.1	J	ug/kg	11
004	B-29-18	Solid	cis-1,2-Dichloroethene	8260B	340		ug/kg	11
004	B-29-18	Solid	trans-1,2-Dichloroethene	8260B	21		ug/kg	11
004	B-29-18	Solid	Trichloroethene	8260B	150	J	ug/kg	12
004	B-29-18	Solid	Vinyl chloride	8260B	0.97	J	ug/kg	12
005	B-29-18 (DUP)	Solid	1,1-Dichloroethene	8260B	3.3	J	ug/kg	13
005	B-29-18 (DUP)	Solid	cis-1,2-Dichloroethene	8260B	290	J	ug/kg	13
005	B-29-18 (DUP)	Solid	trans-1,2-Dichloroethene	8260B	23		ug/kg	13
005	B-29-18 (DUP)	Solid	Trichloroethene	8260B	130	J	ug/kg	14
006	B-30-6	Solid	Acetone	8260B	29		ug/kg	15
006	B-30-6	Solid	cis-1,2-Dichloroethene	8260B	1.7	J	ug/kg	15
006	B-30-6	Solid	Styrene	8260B	2.1	J	ug/kg	15
007	B-30-10	Solid	Acetone	8260B	39		ug/kg	17
007	B-30-10	Solid	cis-1,2-Dichloroethene	8260B	25		ug/kg	17
007	B-30-10	Solid	Styrene	8260B	1.6	J	ug/kg	17
007	B-30-10	Solid	Tetrachloroethene	8260B	1.1	J	ug/kg	17
007	B-30-10	Solid	Trichloroethene	8260B	100		ug/kg	18
008	B-30-14	Solid	cis-1,2-Dichloroethene	8260B	3.4	J	ug/kg	19
008	B-30-14	Solid	Tetrachloroethene	8260B	1.0	J	ug/kg	19
008	B-30-14	Solid	Trichloroethene	8260B	22		ug/kg	20
009	B-30-18	Solid	cis-1,2-Dichloroethene	8260B	24		ug/kg	21
009	B-30-18	Solid	Tetrachloroethene	8260B	2.0	J	ug/kg	21
009	B-30-18	Solid	Trichloroethene	8260B	220	J	ug/kg	22

(35 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-001
Description: B-29-4	Matrix: Solid
Date Sampled: 05/23/2014 1020	% Solids: 85.1 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1640	JJG		47468	5.81

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	15	J	20	6.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.1	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.1	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.1	0.71	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.1	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.1	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.1	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.1	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.1	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.1	0.84	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.1	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.1	0.68	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.1	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.1	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.1	0.86	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.1	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.1	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.1	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.1	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.1	0.74	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.1	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.1	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.1	0.77	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.1	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.1	0.92	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.1	0.69	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.1	0.83	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.1	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.1	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.1	0.99	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.1	0.40	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.1	0.41	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.1	2.6	ug/kg	1
Styrene	100-42-5	8260B	1.7	J	5.1	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.1	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.1	0.51	ug/kg	1
Toluene	108-88-3	8260B	ND		5.1	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.1	0.64	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.1	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.1	0.86	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.1	0.80	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-001
Description: B-29-4	Matrix: Solid
Date Sampled: 05/23/2014 1020	% Solids: 85.1 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1640	JJG		47468	5.81

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.1	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.1	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.1	0.87	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.1	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	53-142
Bromofluorobenzene		95	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-002
Description: B-29-10	Matrix: Solid
Date Sampled: 05/23/2014 1040	% Solids: 87.3 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1703	JJG		47468	5.96

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	140		19	6.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.8	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.8	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.8	0.67	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.8	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.6	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.8	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.8	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.8	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.8	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.8	0.80	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.8	0.96	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.8	0.65	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.8	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.8	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.8	0.82	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.8	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.8	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.8	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.8	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.8	0.70	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.8	0.96	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.8	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	93		4.8	0.73	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	18		4.8	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.8	0.87	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.8	0.65	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.8	0.79	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.8	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.6	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.8	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.8	0.94	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.8	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.6	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.8	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.8	2.5	ug/kg	1
Styrene	100-42-5	8260B	1.3	J	4.8	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.8	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	1.2	J	4.8	0.48	ug/kg	1
Toluene	108-88-3	8260B	ND		4.8	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.8	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.8	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.8	0.82	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.8	0.76	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-002
Description: B-29-10	Matrix: Solid
Date Sampled: 05/23/2014 1040	% Solids: 87.3 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1703	JJG		47468	5.96

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	32		4.8	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.8	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.8	0.83	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.8	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		99	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-003
Description: B-29-14	Matrix: Solid
Date Sampled: 05/23/2014 1050	% Solids: 78.5 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1726	JJG		47468	5.81
2	5035	8260B	50	05/25/2014 2057	JJG		47483	5.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	2.2	J	5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	260	J	280	43	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	13		5.5	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.75	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.93	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-003
Description: B-29-14	Matrix: Solid
Date Sampled: 05/23/2014 1050	% Solids: 78.5 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1726	JJG		47468	5.81
2	5035	8260B	50	05/25/2014 2057	JJG		47483	5.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.87	ug/kg	1
Trichloroethene	79-01-6	8260B	120		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Run 1 Acceptance			Run 2 Acceptance		
	Q	% Recovery	Limits	Q	% Recovery	Limits
1,2-Dichloroethane-d4		90	53-142		64	53-142
Bromofluorobenzene		94	47-138		60	47-138
Toluene-d8		94	68-124	N	62	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-004
Description: B-29-18	Matrix: Solid
Date Sampled: 05/23/2014 1030	% Solids: 76.8 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1749	JJG		47468	6.19
2	5035	8260B	50	05/25/2014 2119	JJG		47483	5.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		21	7.0	ug/kg	1
Benzene	71-43-2	8260B	ND		5.3	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.3	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.3	0.74	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.3	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.3	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.3	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.3	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.3	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.3	0.87	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.3	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.3	0.71	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.3	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.3	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.3	0.89	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.3	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.3	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.3	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.3	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.3	0.77	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.3	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	3.1	J	5.3	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	340		280	42	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	21		5.3	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.3	0.96	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.3	0.71	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.3	0.86	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.3	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.3	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.3	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.3	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.3	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.3	2.7	ug/kg	1
Styrene	100-42-5	8260B	ND		5.3	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.3	0.49	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.3	0.53	ug/kg	1
Toluene	108-88-3	8260B	ND		5.3	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.3	0.66	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.3	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.3	0.89	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-004
Description: B-29-18	Matrix: Solid
Date Sampled: 05/23/2014 1030	% Solids: 76.8 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1749	JJG		47468	6.19
2	5035	8260B	50	05/25/2014 2119	JJG		47483	5.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.3	0.83	ug/kg	1
Trichloroethene	79-01-6	8260B	150	J	280	100	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.3	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	0.97	J	5.3	0.90	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.3	3.0	ug/kg	1

Surrogate	Run 1 Acceptance			Run 2 Acceptance		
	Q	% Recovery	Limits	Q	% Recovery	Limits
1,2-Dichloroethane-d4		89	53-142		63	53-142
Bromofluorobenzene		95	47-138		54	47-138
Toluene-d8		92	68-124	N	58	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-005
Description: B-29-18 (DUP)	Matrix: Solid
Date Sampled: 05/23/2014 1030	% Solids: 76.7 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1812	JJG		47468	5.96
2	5035	8260B	50	05/25/2014 2142	JJG		47483	5.40

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	3.3	J	5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	290	J	300	46	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260B	23		5.5	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.93	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-005
Description: B-29-18 (DUP)	Matrix: Solid
Date Sampled: 05/23/2014 1030	% Solids: 76.7 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1812	JJG		47468	5.96
2	5035	8260B	50	05/25/2014 2142	JJG		47483	5.40

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.86	ug/kg	1
Trichloroethene	79-01-6	8260B	130	J	300	110	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142		81	53-142
Bromofluorobenzene		92	47-138		74	47-138
Toluene-d8		93	68-124		77	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-006
Description: B-30-6	Matrix: Solid
Date Sampled: 05/23/2014 1215	% Solids: 87.2 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1835	JJG		47468	6.00

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	29		19	6.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.8	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.8	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.8	0.67	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.8	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.6	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.8	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.8	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.8	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.8	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.8	0.79	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.8	0.96	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.8	0.64	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.8	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.8	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.8	0.81	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.8	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.8	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.8	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.8	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.8	0.70	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.8	0.96	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.8	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.7	J	4.8	0.73	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.8	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.8	0.87	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.8	0.65	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.8	0.78	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.8	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.6	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.8	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.8	0.94	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.8	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.6	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.8	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.8	2.5	ug/kg	1
Styrene	100-42-5	8260B	2.1	J	4.8	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.8	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.8	0.48	ug/kg	1
Toluene	108-88-3	8260B	ND		4.8	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.8	0.60	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.8	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.8	0.81	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.8	0.76	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-006
Description: B-30-6	Matrix: Solid
Date Sampled: 05/23/2014 1215	% Solids: 87.2 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1835	JJG		47468	6.00

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.8	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.8	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.8	0.82	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.8	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		91	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-007
Description: B-30-10	Matrix: Solid
Date Sampled: 05/23/2014 1220	% Solids: 77.4 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1858	JJG		47468	5.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	39		25	8.3	ug/kg	1
Benzene	71-43-2	8260B	ND		6.2	1.4	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.2	2.1	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.2	0.87	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.2	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	3.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.2	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.2	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.2	2.1	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.2	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.2	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.2	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.2	0.83	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.2	1.9	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.2	2.1	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.2	1.1	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.2	2.1	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.2	2.1	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.2	2.1	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.2	2.0	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.2	0.90	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.2	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.2	2.1	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	25		6.2	0.94	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.2	1.9	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.2	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.2	0.84	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.2	1.0	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.2	2.1	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.2	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.2	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.2	0.50	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.9	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.2	0.51	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.2	3.2	ug/kg	1
Styrene	100-42-5	8260B	1.6	J	6.2	1.4	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.2	0.58	ug/kg	1
Tetrachloroethene	127-18-4	8260B	1.1	J	6.2	0.62	ug/kg	1
Toluene	108-88-3	8260B	ND		6.2	2.1	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.2	0.78	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.2	2.1	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.2	1.1	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.2	0.98	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-007
Description: B-30-10	Matrix: Solid
Date Sampled: 05/23/2014 1220	% Solids: 77.4 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1858	JJG		47468	5.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	100		6.2	2.4	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.2	1.9	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.2	1.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.2	3.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-008
Description: B-30-14	Matrix: Solid
Date Sampled: 05/23/2014 1225	% Solids: 79.0 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1922	JJG		47468	5.34

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		24	7.9	ug/kg	1
Benzene	71-43-2	8260B	ND		5.9	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.9	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.9	0.83	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.9	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.9	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.9	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.9	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.9	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.9	0.98	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.9	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.9	0.80	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.9	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.9	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.9	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.9	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.9	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.9	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.9	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.9	0.87	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.9	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.9	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.4	J	5.9	0.90	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.9	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.9	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.9	0.81	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.9	0.97	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.9	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.9	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.9	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.9	0.47	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.9	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.9	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		5.9	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.9	0.56	ug/kg	1
Tetrachloroethene	127-18-4	8260B	1.0	J	5.9	0.59	ug/kg	1
Toluene	108-88-3	8260B	ND		5.9	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.9	0.75	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.9	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.9	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.9	0.94	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-008
Description: B-30-14	Matrix: Solid
Date Sampled: 05/23/2014 1225	% Solids: 79.0 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1922	JJG		47468	5.34

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	22		5.9	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.9	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.9	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.9	3.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-009
Description: B-30-18	Matrix: Solid
Date Sampled: 05/23/2014 1232	% Solids: 77.6 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1945	JJG		47468	5.90
2	5035	8260B	50	05/25/2014 2205	JJG		47483	5.80

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	24		5.5	0.83	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.5	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	2.0	J	5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.93	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE23029-009
Description: B-30-18	Matrix: Solid
Date Sampled: 05/23/2014 1232	% Solids: 77.6 05/23/2014 2256
Date Received: 05/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/24/2014 1945	JJG		47468	5.90
2	5035	8260B	50	05/25/2014 2205	JJG		47483	5.80

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.86	ug/kg	1
Trichloroethene	79-01-6	8260B	220	J	280	110	ug/kg	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142		58	53-142
Bromofluorobenzene		94	47-138		53	47-138
Toluene-d8		92	68-124	N	54	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47468-001

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/24/2014 1324
Benzene	ND		1	5.0	1.1	ug/kg	05/24/2014 1324
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
Bromoform	ND		1	5.0	0.70	ug/kg	05/24/2014 1324
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/24/2014 1324
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/24/2014 1324
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/24/2014 1324
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/24/2014 1324
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
Chloroethane	ND		1	5.0	1.3	ug/kg	05/24/2014 1324
Chloroform	ND		1	5.0	0.83	ug/kg	05/24/2014 1324
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/24/2014 1324
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/24/2014 1324
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/24/2014 1324
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/24/2014 1324
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/24/2014 1324
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/24/2014 1324
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/24/2014 1324
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/24/2014 1324
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/24/2014 1324
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/24/2014 1324
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/24/2014 1324
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/24/2014 1324
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
2-Hexanone	ND		1	10	1.3	ug/kg	05/24/2014 1324
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/24/2014 1324
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/24/2014 1324
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/24/2014 1324
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/24/2014 1324
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/24/2014 1324
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/24/2014 1324
Styrene	ND		1	5.0	1.1	ug/kg	05/24/2014 1324
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/24/2014 1324
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/24/2014 1324
Toluene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/24/2014 1324
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/24/2014 1324
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/24/2014 1324
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/24/2014 1324

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47468-001

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/24/2014 1324
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/24/2014 1324
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/24/2014 1324
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/24/2014 1324
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		88	47-138				
1,2-Dichloroethane-d4		87	53-142				
Toluene-d8		91	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47468-002

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	125	60-140	05/24/2014 1151
Benzene	50	45		1	89	69-123	05/24/2014 1151
Bromodichloromethane	50	46		1	92	69-121	05/24/2014 1151
Bromoform	50	46		1	92	61-119	05/24/2014 1151
Bromomethane (Methyl bromide)	50	46		1	92	10-168	05/24/2014 1151
2-Butanone (MEK)	100	100		1	105	57-148	05/24/2014 1151
Carbon disulfide	50	45		1	90	58-122	05/24/2014 1151
Carbon tetrachloride	50	46		1	91	58-136	05/24/2014 1151
Chlorobenzene	50	47		1	93	59-129	05/24/2014 1151
Chloroethane	50	47		1	94	42-163	05/24/2014 1151
Chloroform	50	46		1	92	71-125	05/24/2014 1151
Chloromethane (Methyl chloride)	50	45		1	90	34-134	05/24/2014 1151
Cyclohexane	50	46		1	91	53-139	05/24/2014 1151
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	55-125	05/24/2014 1151
Dibromochloromethane	50	47		1	95	66-119	05/24/2014 1151
1,2-Dibromoethane (EDB)	50	46		1	91	74-124	05/24/2014 1151
1,4-Dichlorobenzene	50	49		1	98	52-133	05/24/2014 1151
1,3-Dichlorobenzene	50	48		1	96	51-134	05/24/2014 1151
1,2-Dichlorobenzene	50	49		1	99	57-131	05/24/2014 1151
Dichlorodifluoromethane	50	49		1	99	10-157	05/24/2014 1151
1,2-Dichloroethane	50	46		1	92	67-129	05/24/2014 1151
1,1-Dichloroethane	50	46		1	92	71-127	05/24/2014 1151
trans-1,2-Dichloroethene	50	46		1	93	68-131	05/24/2014 1151
cis-1,2-Dichloroethene	50	47		1	93	70-122	05/24/2014 1151
1,1-Dichloroethene	50	46		1	91	69-138	05/24/2014 1151
1,2-Dichloropropane	50	46		1	91	72-124	05/24/2014 1151
trans-1,3-Dichloropropene	50	48		1	97	70-124	05/24/2014 1151
cis-1,3-Dichloropropene	50	45		1	91	70-126	05/24/2014 1151
Ethylbenzene	50	47		1	95	59-128	05/24/2014 1151
2-Hexanone	100	100		1	102	54-137	05/24/2014 1151
Isopropylbenzene	50	51		1	103	50-136	05/24/2014 1151
Methyl acetate	50	50		1	100	59-137	05/24/2014 1151
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	05/24/2014 1151
4-Methyl-2-pentanone	100	95		1	95	60-134	05/24/2014 1151
Methylcyclohexane	50	45		1	90	41-144	05/24/2014 1151
Methylene chloride	50	47		1	93	70-130	05/24/2014 1151
Styrene	50	47		1	95	54-136	05/24/2014 1151
1,1,2,2-Tetrachloroethane	50	50		1	100	69-132	05/24/2014 1151
Tetrachloroethene	50	46		1	92	45-150	05/24/2014 1151
Toluene	50	45		1	89	61-129	05/24/2014 1151
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	49-136	05/24/2014 1151
1,2,4-Trichlorobenzene	50	48		1	97	34-145	05/24/2014 1151
1,1,1-Trichloroethane	50	48		1	95	63-128	05/24/2014 1151
1,1,2-Trichloroethane	50	45		1	90	55-128	05/24/2014 1151

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47468-002

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	91	62-126	05/24/2014 1151
Trichlorofluoromethane	50	48		1	95	45-138	05/24/2014 1151
Vinyl chloride	50	45		1	90	42-132	05/24/2014 1151
Xylenes (total)	100	97		1	97	58-128	05/24/2014 1151
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		90	47-138				
1,2-Dichloroethane-d4		85	53-142				
Toluene-d8		92	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47468-003

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	130		1	126	1.4	60-140	20	05/24/2014 1214
Benzene	50	47		1	94	4.7	69-123	20	05/24/2014 1214
Bromodichloromethane	50	47		1	94	2.1	69-121	20	05/24/2014 1214
Bromoform	50	49		1	98	6.4	61-119	20	05/24/2014 1214
Bromomethane (Methyl bromide)	50	47		1	93	1.3	10-168	20	05/24/2014 1214
2-Butanone (MEK)	100	110		1	109	4.2	57-148	20	05/24/2014 1214
Carbon disulfide	50	45		1	91	1.3	58-122	20	05/24/2014 1214
Carbon tetrachloride	50	46		1	92	0.26	58-136	20	05/24/2014 1214
Chlorobenzene	50	47		1	94	0.61	59-129	20	05/24/2014 1214
Chloroethane	50	48		1	95	1.8	42-163	20	05/24/2014 1214
Chloroform	50	45		1	91	1.3	71-125	20	05/24/2014 1214
Chloromethane (Methyl chloride)	50	46		1	91	1.4	34-134	20	05/24/2014 1214
Cyclohexane	50	45		1	90	0.77	53-139	20	05/24/2014 1214
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	8.9	55-125	20	05/24/2014 1214
Dibromochloromethane	50	49		1	98	3.9	66-119	20	05/24/2014 1214
1,2-Dibromoethane (EDB)	50	48		1	97	5.7	74-124	20	05/24/2014 1214
1,4-Dichlorobenzene	50	49		1	98	0.088	52-133	20	05/24/2014 1214
1,3-Dichlorobenzene	50	49		1	98	1.8	51-134	20	05/24/2014 1214
1,2-Dichlorobenzene	50	51		1	102	3.0	57-131	20	05/24/2014 1214
Dichlorodifluoromethane	50	49		1	99	0.16	10-157	20	05/24/2014 1214
1,2-Dichloroethane	50	46		1	93	1.3	67-129	20	05/24/2014 1214
1,1-Dichloroethane	50	47		1	95	2.5	71-127	20	05/24/2014 1214
trans-1,2-Dichloroethene	50	45		1	90	2.7	68-131	20	05/24/2014 1214
cis-1,2-Dichloroethene	50	47		1	95	1.8	70-122	20	05/24/2014 1214
1,1-Dichloroethene	50	46		1	92	0.32	69-138	20	05/24/2014 1214
1,2-Dichloropropane	50	47		1	93	2.2	72-124	20	05/24/2014 1214
trans-1,3-Dichloropropene	50	51		1	102	5.5	70-124	20	05/24/2014 1214
cis-1,3-Dichloropropene	50	49		1	97	7.1	70-126	20	05/24/2014 1214
Ethylbenzene	50	49		1	97	2.3	59-128	20	05/24/2014 1214
2-Hexanone	100	110		1	111	8.3	54-137	20	05/24/2014 1214
Isopropylbenzene	50	51		1	101	1.5	50-136	20	05/24/2014 1214
Methyl acetate	50	54		1	108	6.8	59-137	20	05/24/2014 1214
Methyl tertiary butyl ether (MTBE)	50	53		1	105	3.6	70-130	20	05/24/2014 1214
4-Methyl-2-pentanone	100	100		1	105	9.8	60-134	20	05/24/2014 1214
Methylcyclohexane	50	47		1	94	4.4	41-144	20	05/24/2014 1214
Methylene chloride	50	46		1	93	0.37	70-130	20	05/24/2014 1214
Styrene	50	48		1	95	0.88	54-136	20	05/24/2014 1214
1,1,2,2-Tetrachloroethane	50	53		1	107	6.5	69-132	20	05/24/2014 1214
Tetrachloroethene	50	47		1	94	1.3	45-150	20	05/24/2014 1214
Toluene	50	47		1	94	5.1	61-129	20	05/24/2014 1214
1,1,2-Trichloro-1,1,2-Trifluoroethane	50	53		1	106	0.023	49-136	20	05/24/2014 1214
1,2,4-Trichlorobenzene	50	52		1	104	6.8	34-145	20	05/24/2014 1214
1,1,1-Trichloroethane	50	47		1	95	0.74	63-128	20	05/24/2014 1214
1,1,2-Trichloroethane	50	47		1	94	4.0	55-128	20	05/24/2014 1214

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47468-003

Matrix: Solid

Batch: 47468

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	94	3.5	62-126	20	05/24/2014 1214
Trichlorofluoromethane	50	47		1	95	0.52	45-138	20	05/24/2014 1214
Vinyl chloride	50	45		1	90	0.28	42-132	20	05/24/2014 1214
Xylenes (total)	100	97		1	97	0.47	58-128	20	05/24/2014 1214
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		94	47-138						
1,2-Dichloroethane-d4		89	53-142						
Toluene-d8		95	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47483-001

Matrix: Solid

Batch: 47483

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		50	250	38	ug/kg	05/25/2014 1926
Trichloroethene	ND		50	250	95	ug/kg	05/25/2014 1926
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		86	47-138				
1,2-Dichloroethane-d4		99	53-142				
Toluene-d8		91	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47483-002

Matrix: Solid

Batch: 47483

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	2500	2400		50	98	70-122	05/25/2014 1818
Trichloroethene	2500	2400		50	95	62-126	05/25/2014 1818
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	47-138				
1,2-Dichloroethane-d4		101	53-142				
Toluene-d8		100	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47483-003

Matrix: Solid

Batch: 47483

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	2500	2600		50	103	5.4	70-122	20	05/25/2014 1840
Trichloroethene	2500	2500		50	99	4.2	62-126	20	05/25/2014 1840
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		100	47-138						
1,2-Dichloroethane-d4		109	53-142						
Toluene-d8		105	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Number **18489**

Chain of Custody Record

Client: AECOM Address: 3820 Fabric Place, Bldg. 300 City: Charlotte State: SC Zip Code: 28419 Project Name: Stategreen Mobility	Report to Contact: Scott E. Glass Telephone No. / Fax No. / Email: (803) 201-9662 Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Tho.	Sampler (Printed Name): Scott E. Glass Waybill No.: Number of Containers: 4 of 1 Bottle (See Instructions on back):  PE23029	Quote No.: Page 1 of 1
Project Number: 6031382.5 Sample ID / Description: B-29-4 (Containers for each sample may be combined on one line)	Date: 5/23/14 Time: 1020 B-29-10 Time: 1040 B-29-17 Time: 1050 B-29-18 Time: 1030 B-30-6 Time: 1215 B-30-10 Time: 1720 B-30-14 Time: 1225 B-30-18 Time: 1730	Matrix: Composite: <input type="checkbox"/> SW <input type="checkbox"/> DW <input type="checkbox"/> WW <input type="checkbox"/> S Other: X Analysis: TEL VOCs	Possible Hazard Identification: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
Turn Around Time Required (Prior lab approval required for expedited TAT): <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify): (24-48 hrs)	Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab	QC Requirements (Specify): 1. Received by: Date 5/23/14 Time 1540 2. Received by: Date _____ Time _____ 3. Received by: Date _____ Time _____ 4. Laboratory Received by: Scott E. Glass Date 5/23/14 Time 1540	LAB USE ONLY Received on Ice (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> Temp Blank <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Receipt Temp: 12.3 °C

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AECom Cooler Inspected by/date: ECC 5/23/14 Lot #: PE23029

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>112-2123 °C</u> / <u>1</u> / <u>1</u> / <u>1</u> / <u>1</u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1 °C</u>		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: _____ Date: <u>5/23/14</u>		

Comments: No jaw read for % solids: used up VOA screening sample

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.5**

Lot Number: **PE27053**

Date Completed: **05/30/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE27053 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE27053

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE27053

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-31-4	Solid	05/27/2014 1200	05/27/2014
002	B-31-10	Solid	05/27/2014 1205	05/27/2014
003	B-31-14	Solid	05/27/2014 1210	05/27/2014
004	B-32-3	Solid	05/27/2014 1605	05/27/2014
005	B-32-7	Solid	05/27/2014 1610	05/27/2014
006	B-32-16	Solid	05/27/2014 1615	05/27/2014
007	B-32-11	Solid	05/27/2014 1640	05/27/2014
008	TB52714	Aqueous	05/27/2014	05/27/2014

(8 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE27053

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	B-31-4	Solid	Styrene	8260B	4.8	J	ug/kg	5
002	B-31-10	Solid	Styrene	8260B	3.3	J	ug/kg	7
002	B-31-10	Solid	Trichloroethene	8260B	6.0		ug/kg	8
003	B-31-14	Solid	Styrene	8260B	8.2		ug/kg	9
003	B-31-14	Solid	Trichloroethene	8260B	27		ug/kg	10
004	B-32-3	Solid	Acetone	8260B	16	J	ug/kg	11
004	B-32-3	Solid	cis-1,2-Dichloroethene	8260B	6.8		ug/kg	11
004	B-32-3	Solid	Styrene	8260B	3.4	J	ug/kg	11
005	B-32-7	Solid	Acetone	8260B	74		ug/kg	13
005	B-32-7	Solid	2-Butanone (MEK)	8260B	7.9	J	ug/kg	13
005	B-32-7	Solid	cis-1,2-Dichloroethene	8260B	25		ug/kg	13
005	B-32-7	Solid	Styrene	8260B	4.6	J	ug/kg	13
005	B-32-7	Solid	Trichloroethene	8260B	10		ug/kg	14
006	B-32-16	Solid	Acetone	8260B	19	J	ug/kg	15
006	B-32-16	Solid	cis-1,2-Dichloroethene	8260B	39		ug/kg	15
006	B-32-16	Solid	Styrene	8260B	25		ug/kg	15
006	B-32-16	Solid	Trichloroethene	8260B	13		ug/kg	16
007	B-32-11	Solid	Acetone	8260B	30	J	ug/kg	17
007	B-32-11	Solid	cis-1,2-Dichloroethene	8260B	43		ug/kg	17
007	B-32-11	Solid	Styrene	8260B	56		ug/kg	17
007	B-32-11	Solid	Trichloroethene	8260B	14		ug/kg	18

(21 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-001
Description: B-31-4	Matrix: Solid
Date Sampled: 05/27/2014 1200	% Solids: 71.7 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0345	JJG		47589	5.96

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.9	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.9	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.9	0.82	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.9	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.9	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.9	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.9	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.9	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.9	0.97	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.9	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.9	0.79	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.9	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.9	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.9	0.99	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.9	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.9	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.9	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.9	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.9	0.85	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.9	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.9	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.9	0.89	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.9	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.9	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.9	0.80	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.9	0.96	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.9	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.9	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.9	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.9	0.47	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.9	0.48	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.9	3.0	ug/kg	1
Styrene	100-42-5	8260B	4.8	J	5.9	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.9	0.55	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.9	0.59	ug/kg	1
Toluene	108-88-3	8260B	ND		5.9	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.9	0.74	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.9	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.9	0.99	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.9	0.92	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-001
Description: B-31-4	Matrix: Solid
Date Sampled: 05/27/2014 1200	% Solids: 71.7 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0345	JJG		47589	5.96

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.9	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.9	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.9	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.9	3.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-002
Description: B-31-10	Matrix: Solid
Date Sampled: 05/27/2014 1205	% Solids: 83.6 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0408	JJG		47589	6.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		18	6.1	ug/kg	1
Benzene	71-43-2	8260B	ND		4.6	1.0	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.6	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.6	0.64	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.6	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.1	2.2	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.6	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.6	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.6	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.6	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.6	0.76	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.6	0.91	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.6	0.61	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.6	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.6	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.6	0.78	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.6	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.6	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.6	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.6	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.6	0.67	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.6	0.91	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.6	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.6	0.69	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.6	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.6	0.83	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.6	0.62	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.6	0.75	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.6	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.1	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.6	0.21	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.6	0.89	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.6	0.36	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.1	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.6	0.37	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.6	2.4	ug/kg	1
Styrene	100-42-5	8260B	3.3	J	4.6	1.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.6	0.43	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.6	0.46	ug/kg	1
Toluene	108-88-3	8260B	ND		4.6	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.6	0.57	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.6	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.6	0.78	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.6	0.72	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-002
Description: B-31-10	Matrix: Solid
Date Sampled: 05/27/2014 1205	% Solids: 83.6 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0408	JJG		47589	6.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	6.0		4.6	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.6	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.6	0.78	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.6	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-003
Description: B-31-14	Matrix: Solid
Date Sampled: 05/27/2014 1210	% Solids: 79.2 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0431	JJG		47589	5.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.77	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.91	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.74	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.80	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.5	0.83	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.5	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.90	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.8	ug/kg	1
Styrene	100-42-5	8260B	8.2		5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.93	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-003
Description: B-31-14	Matrix: Solid
Date Sampled: 05/27/2014 1210	% Solids: 79.2 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0431	JJG		47589	5.77

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	27		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Run 1 Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-004
Description: B-32-3	Matrix: Solid
Date Sampled: 05/27/2014 1605	% Solids: 76.8 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0454	JJG		47589	5.83

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	16	J	22	7.5	ug/kg	1
Benzene	71-43-2	8260B	ND		5.6	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.6	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.6	0.78	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.6	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.6	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.6	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.6	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.6	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.6	0.93	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.6	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.6	0.75	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.6	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.6	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.6	0.95	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.6	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.6	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.6	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.6	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.6	0.82	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.6	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.6	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	6.8		5.6	0.85	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.6	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.6	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.6	0.76	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.6	0.92	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.6	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.6	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.6	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.6	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.6	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.6	2.9	ug/kg	1
Styrene	100-42-5	8260B	3.4	J	5.6	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.6	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.6	0.56	ug/kg	1
Toluene	108-88-3	8260B	ND		5.6	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.6	0.70	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.6	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.6	0.95	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.6	0.88	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-004
Description: B-32-3	Matrix: Solid
Date Sampled: 05/27/2014 1605	% Solids: 76.8 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0454	JJG		47589	5.83

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.6	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.6	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.6	0.96	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.6	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		90	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-005
Description: B-32-7	Matrix: Solid
Date Sampled: 05/27/2014 1610	% Solids: 50.8 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0516	JJG		47589	6.25

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	74		31	11	ug/kg	1
Benzene	71-43-2	8260B	ND		7.9	1.7	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		7.9	2.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		7.9	1.1	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		7.9	2.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	7.9	J	16	3.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		7.9	2.0	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		7.9	2.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		7.9	2.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		7.9	2.0	ug/kg	1
Chloroform	67-66-3	8260B	ND		7.9	1.3	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		7.9	1.6	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		7.9	1.1	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		7.9	2.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		7.9	2.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		7.9	1.3	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		7.9	2.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		7.9	2.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		7.9	2.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		7.9	2.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		7.9	1.1	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		7.9	1.6	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		7.9	2.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	25		7.9	1.2	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		7.9	2.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		7.9	1.4	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		7.9	1.1	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		7.9	1.3	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		7.9	2.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		16	2.0	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		7.9	0.36	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		7.9	1.5	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		7.9	0.63	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		16	2.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		7.9	0.65	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		7.9	4.1	ug/kg	1
Styrene	100-42-5	8260B	4.6	J	7.9	1.7	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		7.9	0.74	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		7.9	0.79	ug/kg	1
Toluene	108-88-3	8260B	ND		7.9	2.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		7.9	0.99	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		7.9	2.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		7.9	1.3	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		7.9	1.2	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-005
Description: B-32-7	Matrix: Solid
Date Sampled: 05/27/2014 1610	% Solids: 50.8 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0516	JJG		47589	6.25

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	10		7.9	3.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		7.9	2.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		7.9	1.4	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		7.9	4.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-006
Description: B-32-16	Matrix: Solid
Date Sampled: 05/27/2014 1615	% Solids: 46.7 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0539	JJG		47589	5.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	19	J	38	13	ug/kg	1
Benzene	71-43-2	8260B	ND		9.4	2.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		9.4	3.2	ug/kg	1
Bromoform	75-25-2	8260B	ND		9.4	1.3	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		9.4	3.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		19	4.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		9.4	2.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		9.4	3.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		9.4	3.2	ug/kg	1
Chloroethane	75-00-3	8260B	ND		9.4	2.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		9.4	1.6	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		9.4	1.9	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		9.4	1.3	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		9.4	2.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		9.4	3.2	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		9.4	1.6	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		9.4	3.2	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		9.4	3.2	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		9.4	3.2	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		9.4	3.0	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		9.4	1.4	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		9.4	1.9	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		9.4	3.2	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	39		9.4	1.4	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		9.4	2.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		9.4	1.7	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		9.4	1.3	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		9.4	1.5	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		9.4	3.2	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		19	2.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		9.4	0.43	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		9.4	1.8	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		9.4	0.75	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		19	2.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		9.4	0.77	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		9.4	4.9	ug/kg	1
Styrene	100-42-5	8260B	25		9.4	2.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		9.4	0.89	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		9.4	0.94	ug/kg	1
Toluene	108-88-3	8260B	ND		9.4	3.2	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		9.4	1.2	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		9.4	3.2	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		9.4	1.6	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		9.4	1.5	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-006
Description: B-32-16	Matrix: Solid
Date Sampled: 05/27/2014 1615	% Solids: 46.7 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0539	JJG		47589	5.68

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	13		9.4	3.6	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		9.4	2.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		9.4	1.6	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		9.4	5.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		92	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-007
Description: B-32-11	Matrix: Solid
Date Sampled: 05/27/2014 1640	% Solids: 48.5 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0601	JJG		47589	5.39

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	30	J	38	13	ug/kg	1
Benzene	71-43-2	8260B	ND		9.6	2.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		9.6	3.3	ug/kg	1
Bromoform	75-25-2	8260B	ND		9.6	1.3	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		9.6	3.4	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		19	4.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		9.6	2.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		9.6	3.4	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		9.6	3.3	ug/kg	1
Chloroethane	75-00-3	8260B	ND		9.6	2.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		9.6	1.6	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		9.6	1.9	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		9.6	1.3	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		9.6	2.9	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		9.6	3.3	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		9.6	1.6	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		9.6	3.3	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		9.6	3.3	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		9.6	3.3	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		9.6	3.1	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		9.6	1.4	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		9.6	1.9	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		9.6	3.3	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	43		9.6	1.5	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		9.6	2.9	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		9.6	1.7	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		9.6	1.3	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		9.6	1.6	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		9.6	3.3	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		19	2.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		9.6	0.44	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		9.6	1.9	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		9.6	0.77	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		19	2.9	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		9.6	0.78	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		9.6	5.0	ug/kg	1
Styrene	100-42-5	8260B	56		9.6	2.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		9.6	0.90	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		9.6	0.96	ug/kg	1
Toluene	108-88-3	8260B	ND		9.6	3.3	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		9.6	1.2	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		9.6	3.3	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		9.6	1.6	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		9.6	1.5	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-007
Description: B-32-11	Matrix: Solid
Date Sampled: 05/27/2014 1640	% Solids: 48.5 05/27/2014 2105
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/28/2014 0601	JJG		47589	5.39

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	14		9.6	3.6	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		9.6	2.9	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		9.6	1.6	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		9.6	5.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PE27053-008**

Description: **TB52714**

Matrix: **Aqueous**

Date Sampled: **05/27/2014**

Date Received: **05/27/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/28/2014 1235	ALL		47613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE27053-008
Description: TB52714	Matrix: Aqueous
Date Sampled: 05/27/2014	
Date Received: 05/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/28/2014 1235	ALL		47613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47589-001

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/27/2014 2309
Benzene	ND		1	5.0	1.1	ug/kg	05/27/2014 2309
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
Bromoform	ND		1	5.0	0.70	ug/kg	05/27/2014 2309
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/27/2014 2309
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/27/2014 2309
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/27/2014 2309
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/27/2014 2309
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
Chloroethane	ND		1	5.0	1.3	ug/kg	05/27/2014 2309
Chloroform	ND		1	5.0	0.83	ug/kg	05/27/2014 2309
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/27/2014 2309
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/27/2014 2309
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/27/2014 2309
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/27/2014 2309
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/27/2014 2309
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/27/2014 2309
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/27/2014 2309
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/27/2014 2309
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/27/2014 2309
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/27/2014 2309
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/27/2014 2309
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/27/2014 2309
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
2-Hexanone	ND		1	10	1.3	ug/kg	05/27/2014 2309
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/27/2014 2309
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/27/2014 2309
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/27/2014 2309
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/27/2014 2309
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/27/2014 2309
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/27/2014 2309
Styrene	ND		1	5.0	1.1	ug/kg	05/27/2014 2309
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/27/2014 2309
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/27/2014 2309
Toluene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/27/2014 2309
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/27/2014 2309
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/27/2014 2309
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/27/2014 2309

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47589-001

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/27/2014 2309
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/27/2014 2309
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/27/2014 2309
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/27/2014 2309
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		89	47-138				
1,2-Dichloroethane-d4		89	53-142				
Toluene-d8		91	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47589-002

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	116	60-140	05/27/2014 2138
Benzene	50	46		1	93	69-123	05/27/2014 2138
Bromodichloromethane	50	47		1	93	69-121	05/27/2014 2138
Bromoform	50	47		1	95	61-119	05/27/2014 2138
Bromomethane (Methyl bromide)	50	43		1	87	10-168	05/27/2014 2138
2-Butanone (MEK)	100	100		1	104	57-148	05/27/2014 2138
Carbon disulfide	50	42		1	85	58-122	05/27/2014 2138
Carbon tetrachloride	50	46		1	92	58-136	05/27/2014 2138
Chlorobenzene	50	47		1	95	59-129	05/27/2014 2138
Chloroethane	50	44		1	89	42-163	05/27/2014 2138
Chloroform	50	45		1	89	71-125	05/27/2014 2138
Chloromethane (Methyl chloride)	50	43		1	86	34-134	05/27/2014 2138
Cyclohexane	50	45		1	90	53-139	05/27/2014 2138
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	55-125	05/27/2014 2138
Dibromochloromethane	50	47		1	94	66-119	05/27/2014 2138
1,2-Dibromoethane (EDB)	50	47		1	95	74-124	05/27/2014 2138
1,4-Dichlorobenzene	50	48		1	97	52-133	05/27/2014 2138
1,2-Dichlorobenzene	50	49		1	97	57-131	05/27/2014 2138
1,3-Dichlorobenzene	50	46		1	92	51-134	05/27/2014 2138
Dichlorodifluoromethane	50	41		1	82	10-157	05/27/2014 2138
1,2-Dichloroethane	50	45		1	90	67-129	05/27/2014 2138
1,1-Dichloroethane	50	46		1	93	71-127	05/27/2014 2138
trans-1,2-Dichloroethene	50	45		1	91	68-131	05/27/2014 2138
cis-1,2-Dichloroethene	50	46		1	92	70-122	05/27/2014 2138
1,1-Dichloroethene	50	44		1	89	69-138	05/27/2014 2138
1,2-Dichloropropane	50	47		1	95	72-124	05/27/2014 2138
trans-1,3-Dichloropropene	50	48		1	96	70-124	05/27/2014 2138
cis-1,3-Dichloropropene	50	48		1	96	70-126	05/27/2014 2138
Ethylbenzene	50	47		1	94	59-128	05/27/2014 2138
2-Hexanone	100	100		1	100	54-137	05/27/2014 2138
Isopropylbenzene	50	50		1	101	50-136	05/27/2014 2138
Methyl acetate	50	49		1	98	59-137	05/27/2014 2138
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	05/27/2014 2138
4-Methyl-2-pentanone	100	100		1	102	60-134	05/27/2014 2138
Methylcyclohexane	50	47		1	94	41-144	05/27/2014 2138
Methylene chloride	50	44		1	89	70-130	05/27/2014 2138
Styrene	50	47		1	93	54-136	05/27/2014 2138
1,1,2,2-Tetrachloroethane	50	50		1	100	69-132	05/27/2014 2138
Tetrachloroethene	50	46		1	92	45-150	05/27/2014 2138
Toluene	50	46		1	92	61-129	05/27/2014 2138
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	49-136	05/27/2014 2138
1,2,4-Trichlorobenzene	50	50		1	100	34-145	05/27/2014 2138
1,1,1-Trichloroethane	50	46		1	92	63-128	05/27/2014 2138
1,1,2-Trichloroethane	50	45		1	91	55-128	05/27/2014 2138

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47589-002

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	62-126	05/27/2014 2138
Trichlorofluoromethane	50	45		1	91	45-138	05/27/2014 2138
Vinyl chloride	50	44		1	89	42-132	05/27/2014 2138
Xylenes (total)	100	96		1	96	58-128	05/27/2014 2138

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	47-138
1,2-Dichloroethane-d4		92	53-142
Toluene-d8		97	68-124

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47589-003

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	107	8.4	60-140	20	05/27/2014 2201
Benzene	50	45		1	90	3.7	69-123	20	05/27/2014 2201
Bromodichloromethane	50	46		1	92	1.4	69-121	20	05/27/2014 2201
Bromoform	50	46		1	92	3.2	61-119	20	05/27/2014 2201
Bromomethane (Methyl bromide)	50	41		1	82	5.7	10-168	20	05/27/2014 2201
2-Butanone (MEK)	100	98		1	98	6.2	57-148	20	05/27/2014 2201
Carbon disulfide	50	40		1	80	5.3	58-122	20	05/27/2014 2201
Carbon tetrachloride	50	43		1	87	6.1	58-136	20	05/27/2014 2201
Chlorobenzene	50	46		1	92	3.0	59-129	20	05/27/2014 2201
Chloroethane	50	42		1	85	4.6	42-163	20	05/27/2014 2201
Chloroform	50	43		1	87	2.9	71-125	20	05/27/2014 2201
Chloromethane (Methyl chloride)	50	41		1	83	4.3	34-134	20	05/27/2014 2201
Cyclohexane	50	43		1	86	4.6	53-139	20	05/27/2014 2201
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	2.8	55-125	20	05/27/2014 2201
Dibromochloromethane	50	48		1	95	0.97	66-119	20	05/27/2014 2201
1,2-Dibromoethane (EDB)	50	47		1	94	1.1	74-124	20	05/27/2014 2201
1,4-Dichlorobenzene	50	46		1	92	5.5	52-133	20	05/27/2014 2201
1,2-Dichlorobenzene	50	47		1	95	2.5	57-131	20	05/27/2014 2201
1,3-Dichlorobenzene	50	46		1	92	0.29	51-134	20	05/27/2014 2201
Dichlorodifluoromethane	50	40		1	79	3.3	10-157	20	05/27/2014 2201
1,2-Dichloroethane	50	45		1	89	1.5	67-129	20	05/27/2014 2201
1,1-Dichloroethane	50	44		1	88	5.1	71-127	20	05/27/2014 2201
trans-1,2-Dichloroethene	50	43		1	86	5.0	68-131	20	05/27/2014 2201
cis-1,2-Dichloroethene	50	44		1	88	4.4	70-122	20	05/27/2014 2201
1,1-Dichloroethene	50	42		1	84	5.6	69-138	20	05/27/2014 2201
1,2-Dichloropropane	50	46		1	91	3.7	72-124	20	05/27/2014 2201
trans-1,3-Dichloropropene	50	49		1	98	1.8	70-124	20	05/27/2014 2201
cis-1,3-Dichloropropene	50	46		1	91	5.3	70-126	20	05/27/2014 2201
Ethylbenzene	50	47		1	94	0.44	59-128	20	05/27/2014 2201
2-Hexanone	100	100		1	101	0.58	54-137	20	05/27/2014 2201
Isopropylbenzene	50	48		1	95	5.2	50-136	20	05/27/2014 2201
Methyl acetate	50	47		1	95	3.6	59-137	20	05/27/2014 2201
Methyl tertiary butyl ether (MTBE)	50	48		1	96	4.2	70-130	20	05/27/2014 2201
4-Methyl-2-pentanone	100	98		1	98	3.4	60-134	20	05/27/2014 2201
Methylcyclohexane	50	44		1	89	6.3	41-144	20	05/27/2014 2201
Methylene chloride	50	43		1	86	3.6	70-130	20	05/27/2014 2201
Styrene	50	46		1	92	1.6	54-136	20	05/27/2014 2201
1,1,2,2-Tetrachloroethane	50	48		1	96	4.2	69-132	20	05/27/2014 2201
Tetrachloroethene	50	46		1	92	0.58	45-150	20	05/27/2014 2201
Toluene	50	46		1	92	0.38	61-129	20	05/27/2014 2201
1,1,2-Trichloro-1,1,2-Trifluoroethane	50	48		1	96	7.5	49-136	20	05/27/2014 2201
1,2,4-Trichlorobenzene	50	47		1	93	6.7	34-145	20	05/27/2014 2201
1,1,1-Trichloroethane	50	45		1	89	3.4	63-128	20	05/27/2014 2201
1,1,2-Trichloroethane	50	45		1	90	0.90	55-128	20	05/27/2014 2201

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47589-003

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	44		1	88	5.8	62-126	20	05/27/2014 2201
Trichlorofluoromethane	50	43		1	86	4.7	45-138	20	05/27/2014 2201
Vinyl chloride	50	41		1	82	8.2	42-132	20	05/27/2014 2201
Xylenes (total)	100	94		1	94	2.5	58-128	20	05/27/2014 2201
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		96	47-138						
1,2-Dichloroethane-d4		90	53-142						
Toluene-d8		96	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE27053-001DU

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	ND	ND		1	0.00	20	05/28/2014 0755
Benzene	ND	ND		1	0.00	20	05/28/2014 0755
Bromodichloromethane	ND	ND		1	0.00	20	05/28/2014 0755
Bromoform	ND	ND		1	0.00	20	05/28/2014 0755
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	05/28/2014 0755
2-Butanone (MEK)	ND	ND		1	0.00	20	05/28/2014 0755
Carbon disulfide	ND	ND		1	0.00	20	05/28/2014 0755
Carbon tetrachloride	ND	ND		1	0.00	20	05/28/2014 0755
Chlorobenzene	ND	ND		1	0.00	20	05/28/2014 0755
Chloroethane	ND	ND		1	0.00	20	05/28/2014 0755
Chloroform	ND	ND		1	0.00	20	05/28/2014 0755
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	05/28/2014 0755
Cyclohexane	ND	ND		1	0.00	20	05/28/2014 0755
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	05/28/2014 0755
Dibromochloromethane	ND	ND		1	0.00	20	05/28/2014 0755
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	05/28/2014 0755
1,2-Dichlorobenzene	ND	ND		1	0.00	20	05/28/2014 0755
1,3-Dichlorobenzene	ND	ND		1	0.00	20	05/28/2014 0755
1,4-Dichlorobenzene	ND	ND		1	0.00	20	05/28/2014 0755
Dichlorodifluoromethane	ND	ND		1	0.00	20	05/28/2014 0755
1,1-Dichloroethane	ND	ND		1	0.00	20	05/28/2014 0755
1,2-Dichloroethane	ND	ND		1	0.00	20	05/28/2014 0755
1,1-Dichloroethene	ND	ND		1	0.00	20	05/28/2014 0755
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	05/28/2014 0755
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	05/28/2014 0755
1,2-Dichloropropane	ND	ND		1	0.00	20	05/28/2014 0755
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	05/28/2014 0755
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	05/28/2014 0755
Ethylbenzene	ND	ND		1	0.00	20	05/28/2014 0755
2-Hexanone	ND	ND		1	0.00	20	05/28/2014 0755
Isopropylbenzene	ND	ND		1	0.00	20	05/28/2014 0755
Methyl acetate	ND	ND		1	0.00	20	05/28/2014 0755
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	05/28/2014 0755
4-Methyl-2-pentanone	ND	ND		1	0.00	20	05/28/2014 0755
Methylcyclohexane	ND	ND		1	0.00	20	05/28/2014 0755
Methylene chloride	ND	ND		1	0.00	20	05/28/2014 0755
Styrene	4.8	3.8	+	1	24	20	05/28/2014 0755
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	05/28/2014 0755
Tetrachloroethene	ND	ND		1	0.00	20	05/28/2014 0755
Toluene	ND	ND		1	0.00	20	05/28/2014 0755
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	05/28/2014 0755
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	05/28/2014 0755
1,1,1-Trichloroethane	ND	ND		1	0.00	20	05/28/2014 0755
1,1,2-Trichloroethane	ND	ND		1	0.00	20	05/28/2014 0755

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE27053-001DU

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	05/28/2014 0755
Trichlorofluoromethane	ND	ND		1	0.00	20	05/28/2014 0755
Vinyl chloride	ND	ND		1	0.00	20	05/28/2014 0755
Xylenes (total)	ND	ND		1	0.00	20	05/28/2014 0755

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE27053-002MS

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	100		1	103	60-140	05/28/2014 0818
Benzene	ND	50	50		1	100	69-123	05/28/2014 0818
Bromodichloromethane	ND	50	50		1	99	69-121	05/28/2014 0818
Bromoform	ND	50	48		1	95	61-119	05/28/2014 0818
Bromomethane (Methyl bromide)	ND	50	52		1	103	35-144	05/28/2014 0818
2-Butanone (MEK)	ND	100	99		1	99	57-148	05/28/2014 0818
Carbon disulfide	ND	50	50		1	98	58-122	05/28/2014 0818
Carbon tetrachloride	ND	50	49		1	97	58-136	05/28/2014 0818
Chlorobenzene	ND	50	47		1	94	59-129	05/28/2014 0818
Chloroethane	ND	50	53		1	106	50-132	05/28/2014 0818
Chloroform	ND	50	50		1	99	71-125	05/28/2014 0818
Chloromethane (Methyl chloride)	ND	50	54		1	107	34-134	05/28/2014 0818
Cyclohexane	ND	50	48		1	95	53-139	05/28/2014 0818
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	47		1	93	55-125	05/28/2014 0818
Dibromochloromethane	ND	50	48		1	96	66-119	05/28/2014 0818
1,2-Dibromoethane (EDB)	ND	50	48		1	95	74-124	05/28/2014 0818
1,2-Dichlorobenzene	ND	50	46		1	91	57-131	05/28/2014 0818
1,3-Dichlorobenzene	ND	50	44		1	87	51-134	05/28/2014 0818
1,4-Dichlorobenzene	ND	50	43		1	85	52-133	05/28/2014 0818
Dichlorodifluoromethane	ND	50	57		1	113	10-157	05/28/2014 0818
1,1-Dichloroethane	ND	50	50		1	99	71-127	05/28/2014 0818
1,2-Dichloroethane	ND	50	49		1	98	67-129	05/28/2014 0818
1,1-Dichloroethene	ND	50	50		1	100	69-138	05/28/2014 0818
cis-1,2-Dichloroethene	ND	50	50		1	99	70-122	05/28/2014 0818
trans-1,2-Dichloroethene	ND	50	50		1	99	68-131	05/28/2014 0818
1,2-Dichloropropane	ND	50	49		1	98	72-124	05/28/2014 0818
cis-1,3-Dichloropropene	ND	50	49		1	96	70-126	05/28/2014 0818
trans-1,3-Dichloropropene	ND	50	48		1	95	70-124	05/28/2014 0818
Ethylbenzene	ND	50	46		1	92	59-128	05/28/2014 0818
2-Hexanone	ND	100	91		1	91	54-137	05/28/2014 0818
Isopropylbenzene	ND	50	47		1	93	50-136	05/28/2014 0818
Methyl acetate	ND	50	55		1	110	59-137	05/28/2014 0818
Methyl tertiary butyl ether (MTBE)	ND	50	56		1	111	70-130	05/28/2014 0818
4-Methyl-2-pentanone	ND	100	100		1	99	60-134	05/28/2014 0818
Methylcyclohexane	ND	50	48		1	95	41-144	05/28/2014 0818
Methylene chloride	ND	50	49		1	98	77-129	05/28/2014 0818
Styrene	3.3	50	58		1	108	54-136	05/28/2014 0818
1,1,2,2-Tetrachloroethane	ND	50	51		1	102	69-132	05/28/2014 0818
Tetrachloroethene	ND	50	45		1	90	70-130	05/28/2014 0818
Toluene	ND	50	48		1	95	61-129	05/28/2014 0818
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	59		1	117	49-136	05/28/2014 0818
1,2,4-Trichlorobenzene	ND	50	39		1	77	34-145	05/28/2014 0818
1,1,1-Trichloroethane	ND	50	51		1	100	63-128	05/28/2014 0818
1,1,2-Trichloroethane	ND	50	47		1	93	55-128	05/28/2014 0818

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE27053-002MS

Matrix: Solid

Batch: 47589

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	6.0	50	49		1	85	62-126	05/28/2014 0818
Trichlorofluoromethane	ND	50	52		1	104	45-138	05/28/2014 0818
Vinyl chloride	ND	50	54		1	107	42-132	05/28/2014 0818
Xylenes (total)	ND	100	95		1	94	58-128	05/28/2014 0818
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		93	53-142					
Bromofluorobenzene		93	47-138					
Toluene-d8		97	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47613-001

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	05/28/2014 1013
Benzene	ND		1	5.0	0.20	ug/L	05/28/2014 1013
Bromodichloromethane	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Bromoform	ND		1	5.0	0.40	ug/L	05/28/2014 1013
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	05/28/2014 1013
2-Butanone (MEK)	ND		1	10	1.8	ug/L	05/28/2014 1013
Carbon disulfide	ND		1	5.0	0.30	ug/L	05/28/2014 1013
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	05/28/2014 1013
Chlorobenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Chloroethane	ND		1	5.0	0.50	ug/L	05/28/2014 1013
Chloroform	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	05/28/2014 1013
Cyclohexane	ND		1	5.0	0.98	ug/L	05/28/2014 1013
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	05/28/2014 1013
Dibromochloromethane	ND		1	5.0	1.7	ug/L	05/28/2014 1013
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	05/28/2014 1013
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	05/28/2014 1013
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	05/28/2014 1013
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	05/28/2014 1013
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	05/28/2014 1013
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	05/28/2014 1013
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	05/28/2014 1013
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	05/28/2014 1013
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/28/2014 1013
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/28/2014 1013
Ethylbenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
2-Hexanone	ND		1	10	1.0	ug/L	05/28/2014 1013
Isopropylbenzene	ND		1	5.0	1.0	ug/L	05/28/2014 1013
Methyl acetate	ND		1	5.0	0.72	ug/L	05/28/2014 1013
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	05/28/2014 1013
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	05/28/2014 1013
Methylcyclohexane	ND		1	5.0	0.95	ug/L	05/28/2014 1013
Methylene chloride	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Styrene	ND		1	5.0	0.10	ug/L	05/28/2014 1013
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	05/28/2014 1013
Tetrachloroethene	ND		1	5.0	0.40	ug/L	05/28/2014 1013
Toluene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	05/28/2014 1013
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	05/28/2014 1013
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	05/28/2014 1013
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	05/28/2014 1013

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47613-001

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	05/28/2014 1013
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	05/28/2014 1013
Vinyl chloride	ND		1	2.0	0.10	ug/L	05/28/2014 1013
Xylenes (total)	ND		1	5.0	1.7	ug/L	05/28/2014 1013
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		103	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47613-002

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	105	60-140	05/28/2014 0837
Benzene	50	49		1	98	70-130	05/28/2014 0837
Bromodichloromethane	50	47		1	94	70-130	05/28/2014 0837
Bromoform	50	47		1	93	70-130	05/28/2014 0837
Bromomethane (Methyl bromide)	50	45		1	89	60-140	05/28/2014 0837
2-Butanone (MEK)	100	110		1	108	60-140	05/28/2014 0837
Carbon disulfide	50	50		1	100	60-140	05/28/2014 0837
Carbon tetrachloride	50	49		1	97	70-130	05/28/2014 0837
Chlorobenzene	50	47		1	94	70-130	05/28/2014 0837
Chloroethane	50	51		1	101	42-163	05/28/2014 0837
Chloroform	50	49		1	97	70-130	05/28/2014 0837
Chloromethane (Methyl chloride)	50	50		1	100	60-140	05/28/2014 0837
Cyclohexane	50	54		1	107	70-130	05/28/2014 0837
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	05/28/2014 0837
Dibromochloromethane	50	48		1	96	70-130	05/28/2014 0837
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	05/28/2014 0837
1,2-Dichlorobenzene	50	46		1	92	70-130	05/28/2014 0837
1,4-Dichlorobenzene	50	46		1	92	70-130	05/28/2014 0837
1,3-Dichlorobenzene	50	47		1	94	70-130	05/28/2014 0837
Dichlorodifluoromethane	50	49		1	97	60-140	05/28/2014 0837
1,2-Dichloroethane	50	50		1	100	70-130	05/28/2014 0837
1,1-Dichloroethane	50	50		1	99	70-130	05/28/2014 0837
trans-1,2-Dichloroethene	50	50		1	99	70-130	05/28/2014 0837
cis-1,2-Dichloroethene	50	49		1	98	70-130	05/28/2014 0837
1,1-Dichloroethene	50	50		1	100	70-130	05/28/2014 0837
1,2-Dichloropropane	50	50		1	99	70-130	05/28/2014 0837
trans-1,3-Dichloropropene	50	51		1	103	70-130	05/28/2014 0837
cis-1,3-Dichloropropene	50	51		1	102	70-130	05/28/2014 0837
Ethylbenzene	50	47		1	95	70-130	05/28/2014 0837
2-Hexanone	100	100		1	104	60-140	05/28/2014 0837
Isopropylbenzene	50	49		1	98	70-130	05/28/2014 0837
Methyl acetate	50	54		1	109	70-130	05/28/2014 0837
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	05/28/2014 0837
4-Methyl-2-pentanone	100	100		1	101	60-140	05/28/2014 0837
Methylcyclohexane	50	49		1	98	70-130	05/28/2014 0837
Methylene chloride	50	46		1	92	70-130	05/28/2014 0837
Styrene	50	47		1	94	70-130	05/28/2014 0837
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	05/28/2014 0837
Tetrachloroethene	50	45		1	89	70-130	05/28/2014 0837
Toluene	50	49		1	98	70-130	05/28/2014 0837
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	115	70-130	05/28/2014 0837
1,2,4-Trichlorobenzene	50	45		1	90	70-130	05/28/2014 0837
1,1,1-Trichloroethane	50	48		1	95	70-130	05/28/2014 0837
1,1,2-Trichloroethane	50	48		1	96	70-130	05/28/2014 0837

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47613-002

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	93	70-130	05/28/2014 0837
Trichlorofluoromethane	50	54		1	108	70-130	05/28/2014 0837
Vinyl chloride	50	49		1	98	70-130	05/28/2014 0837
Xylenes (total)	100	95		1	95	70-130	05/28/2014 0837
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		97	70-130				
Toluene-d8		102	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47613-003

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	124	16	60-140	20	05/28/2014 0901
Benzene	50	50		1	99	1.4	70-130	20	05/28/2014 0901
Bromodichloromethane	50	49		1	98	3.3	70-130	20	05/28/2014 0901
Bromoform	50	49		1	97	3.9	70-130	20	05/28/2014 0901
Bromomethane (Methyl bromide)	50	45		1	89	0.15	60-140	20	05/28/2014 0901
2-Butanone (MEK)	100	110		1	115	6.0	60-140	20	05/28/2014 0901
Carbon disulfide	50	50		1	99	0.54	60-140	20	05/28/2014 0901
Carbon tetrachloride	50	49		1	99	1.3	70-130	20	05/28/2014 0901
Chlorobenzene	50	48		1	96	2.8	70-130	20	05/28/2014 0901
Chloroethane	50	50		1	101	0.091	42-163	20	05/28/2014 0901
Chloroform	50	49		1	98	1.0	70-130	20	05/28/2014 0901
Chloromethane (Methyl chloride)	50	49		1	99	0.97	60-140	20	05/28/2014 0901
Cyclohexane	50	52		1	103	3.7	70-130	20	05/28/2014 0901
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	4.3	70-130	20	05/28/2014 0901
Dibromochloromethane	50	49		1	97	1.7	70-130	20	05/28/2014 0901
1,2-Dibromoethane (EDB)	50	50		1	100	3.9	70-130	20	05/28/2014 0901
1,2-Dichlorobenzene	50	48		1	95	3.4	70-130	20	05/28/2014 0901
1,4-Dichlorobenzene	50	48		1	95	3.4	70-130	20	05/28/2014 0901
1,3-Dichlorobenzene	50	48		1	97	3.2	70-130	20	05/28/2014 0901
Dichlorodifluoromethane	50	48		1	96	1.5	60-140	20	05/28/2014 0901
1,2-Dichloroethane	50	51		1	101	1.5	70-130	20	05/28/2014 0901
1,1-Dichloroethane	50	50		1	100	1.1	70-130	20	05/28/2014 0901
trans-1,2-Dichloroethene	50	51		1	102	2.5	70-130	20	05/28/2014 0901
cis-1,2-Dichloroethene	50	51		1	102	3.8	70-130	20	05/28/2014 0901
1,1-Dichloroethene	50	50		1	100	0.46	70-130	20	05/28/2014 0901
1,2-Dichloropropane	50	51		1	102	3.1	70-130	20	05/28/2014 0901
trans-1,3-Dichloropropene	50	52		1	103	0.67	70-130	20	05/28/2014 0901
cis-1,3-Dichloropropene	50	52		1	104	2.1	70-130	20	05/28/2014 0901
Ethylbenzene	50	49		1	99	4.2	70-130	20	05/28/2014 0901
2-Hexanone	100	110		1	112	7.4	60-140	20	05/28/2014 0901
Isopropylbenzene	50	51		1	102	4.3	70-130	20	05/28/2014 0901
Methyl acetate	50	58		1	116	6.9	70-130	20	05/28/2014 0901
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.35	70-130	20	05/28/2014 0901
4-Methyl-2-pentanone	100	110		1	108	6.0	60-140	20	05/28/2014 0901
Methylcyclohexane	50	50		1	100	1.3	70-130	20	05/28/2014 0901
Methylene chloride	50	46		1	92	0.046	70-130	20	05/28/2014 0901
Styrene	50	49		1	98	4.2	70-130	20	05/28/2014 0901
1,1,2,2-Tetrachloroethane	50	52		1	104	4.0	70-130	20	05/28/2014 0901
Tetrachloroethene	50	47		1	93	4.5	70-130	20	05/28/2014 0901
Toluene	50	51		1	102	3.6	70-130	20	05/28/2014 0901
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	116	0.95	70-130	20	05/28/2014 0901
1,2,4-Trichlorobenzene	50	48		1	95	5.9	70-130	20	05/28/2014 0901
1,1,1-Trichloroethane	50	49		1	98	3.1	70-130	20	05/28/2014 0901
1,1,2-Trichloroethane	50	49		1	98	2.7	70-130	20	05/28/2014 0901

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47613-003

Matrix: Aqueous

Batch: 47613

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	95	2.0	70-130	20	05/28/2014 0901
Trichlorofluoromethane	50	55		1	109	1.8	70-130	20	05/28/2014 0901
Vinyl chloride	50	49		1	98	0.63	70-130	20	05/28/2014 0901
Xylenes (total)	100	98		1	98	2.8	70-130	20	05/28/2014 0901
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		97	70-130						
1,2-Dichloroethane-d4		98	70-130						
Toluene-d8		104	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number **18490**

Client AECOM	Report in Contact Scott Ross	Sampler (Printed Name) Scott Ross	Quote No.	Page 1 of 1
Address 3920 Fiber Place St. 300	Telephone No. / Fax No. / Email (803) 201-9662	Waybill No.	Number of Containers 1	
City Charleston	State SC	Zip Code 29405	Matrix PE27053	
Project Name Interference - Nonresidential	Preservative 1. Urines, 4. HNO3, 7. NaOH 2. NaOH/ZnA, 5. HCL 3. H2SO4, 6. Na Tho.		Matrix PE27053	
Project Number 60310382.5	P.O. Number		Matrix PE27053	
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Matrix PE27053	
B-31-4	5/27/14	1200	6	
B-31-10	"	1205	Y	
B-31-14	"	1210	Y	
B-32-3	"	1605	X	
B-32-7	"	1610	Y	
B-32-116	"	1615	Y	
B-32-11	"	1620	X	
SP 022				
TS 2214				

Sample Disposal	Possible Hazard Identification	
	<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable
<input type="checkbox"/> Return to Client	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison
<input type="checkbox"/> Deposal by Land	<input type="checkbox"/> Unknown	

Turn Around Time Required (Prior site approval required for expedited TAT)	QC Requirements (Specify)	Possible Hazard Identification
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Plasma Specif): 24-48 hrs	1. Received by	<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
1. Relinquished by / Sampler Scott Ross	Date 5/27/14	Date 5/27/14
2. Relinquished by	Time 1800	Time 1800
3. Relinquished by	Date	Date
4. Relinquished by	Date	Date

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: McCom Cooler Inspected by/date: ECC 5/27/14 Lot #: PE 270 53

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
2. If custody seals were present, were they intact and unbroken?		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>186115715-8</u> °C <u>1</u> / <u>1</u> °C <u>1</u> / <u>1</u> °C <u>1</u> / <u>1</u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>10.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
4. Is the commercial courier's packing slip attached to this form?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
5. Were proper custody procedures (relinquished/received) followed?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5a Were samples relinquished by client to commercial courier?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
6. Were sample IDs listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
7. Were sample IDs listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
8. Was collection date & time listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
9. Was collection date & time listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
10. Did all container label information (ID, date, time) agree with the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
11. Were tests to be performed listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
12. Did all samples arrive in the proper containers for each test?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
13. Did all containers arrive in good condition (unbroken, lids on, etc.)?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
14. Was adequate sample volume available?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
16. Were any samples containers missing?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
17. Were there any excess samples not listed on COC?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
20. Were all cyanide and/or sulfide samples received at a pH >12?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
22. Were collection temperatures documented on the COC for NC samples?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	
24. Was the quote number used taken from the container label?		
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>[Signature]</u> Date: <u>5/27/14</u>		

Comments:
- 001, -002, -003 have no jars for % solids; used up sample from VOA screwing vial.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare Newberry**

Project Number: **60318382.Task5**

Lot Number: **PE28056**

Date Completed: **05/30/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE28056 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE28056

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE28056

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-33-6	Solid	05/28/2014 0950	05/28/2014
002	B-33-12	Solid	05/28/2014 0955	05/28/2014
003	B-33-15	Solid	05/28/2014 1000	05/28/2014
004	B-33-25	Solid	05/28/2014 1005	05/28/2014
005	B-34-2	Solid	05/28/2014 1700	05/28/2014
006	B-34-10	Solid	05/28/2014 1710	05/28/2014
007	B-34-13	Solid	05/28/2014 1715	05/28/2014

(7 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE28056

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	B-33-6	Solid	Acetone	8260B	48		ug/kg	5
001	B-33-6	Solid	cis-1,2-Dichloroethene	8260B	0.99	J	ug/kg	5
001	B-33-6	Solid	Styrene	8260B	18		ug/kg	5
002	B-33-12	Solid	Acetone	8260B	64		ug/kg	7
002	B-33-12	Solid	2-Butanone (MEK)	8260B	6.0	J	ug/kg	7
002	B-33-12	Solid	cis-1,2-Dichloroethene	8260B	12		ug/kg	7
002	B-33-12	Solid	Styrene	8260B	18		ug/kg	7
003	B-33-15	Solid	Acetone	8260B	21		ug/kg	9
003	B-33-15	Solid	2-Butanone (MEK)	8260B	3.0	J	ug/kg	9
003	B-33-15	Solid	cis-1,2-Dichloroethene	8260B	14		ug/kg	9
003	B-33-15	Solid	Styrene	8260B	29		ug/kg	9
004	B-33-25	Solid	Acetone	8260B	15	J	ug/kg	11
004	B-33-25	Solid	cis-1,2-Dichloroethene	8260B	18		ug/kg	11
004	B-33-25	Solid	Styrene	8260B	1.4	J	ug/kg	11
004	B-33-25	Solid	Trichloroethene	8260B	17		ug/kg	12
004	B-33-25	Solid	Vinyl chloride	8260B	4.7	J	ug/kg	12
005	B-34-2	Solid	Acetone	8260B	43		ug/kg	13
006	B-34-10	Solid	Acetone	8260B	24		ug/kg	15
006	B-34-10	Solid	Chloroform	8260B	1.4	J	ug/kg	15
006	B-34-10	Solid	Styrene	8260B	1.9	J	ug/kg	15
006	B-34-10	Solid	Trichloroethene	8260B	2.6	J	ug/kg	16
007	B-34-13	Solid	Acetone	8260B	15	J	ug/kg	17
007	B-34-13	Solid	Trichloroethene	8260B	4.3	J	ug/kg	18

(23 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-001
Description: B-33-6	Matrix: Solid
Date Sampled: 05/28/2014 0950	% Solids: 81.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0233	JJG		47696	6.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	48		20	6.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.0	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.0	0.69	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.9	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.0	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.0	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.0	0.82	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.99	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.67	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.84	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.72	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.99	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.99	J	5.0	0.75	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.90	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.67	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.81	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.9	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.97	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.9	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.41	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.6	ug/kg	1
Styrene	100-42-5	8260B	18		5.0	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.47	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.50	ug/kg	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.63	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.84	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.78	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-001
Description: B-33-6	Matrix: Solid
Date Sampled: 05/28/2014 0950	% Solids: 81.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0233	JJG		47696	6.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.0	0.85	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-002
Description: B-33-12	Matrix: Solid
Date Sampled: 05/28/2014 0955	% Solids: 89.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0257	JJG		47696	5.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	64		19	6.4	ug/kg	1
Benzene	71-43-2	8260B	ND		4.8	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.8	1.6	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.8	0.67	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.8	1.7	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	6.0	J	9.6	2.3	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.8	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.8	1.7	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.8	1.6	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.8	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.8	0.80	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.8	0.96	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.8	0.65	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.8	1.4	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.8	1.6	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.8	0.82	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.8	1.6	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.8	1.6	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.8	1.6	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.8	1.5	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.8	0.70	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.8	0.96	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.8	1.6	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	12		4.8	0.73	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.8	1.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.8	0.88	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.8	0.65	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.8	0.79	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.8	1.6	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.6	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.8	0.22	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.8	0.94	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.8	0.38	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.6	1.4	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.8	0.39	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.8	2.5	ug/kg	1
Styrene	100-42-5	8260B	18		4.8	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.8	0.45	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.8	0.48	ug/kg	1
Toluene	108-88-3	8260B	ND		4.8	1.6	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.8	0.61	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.8	1.6	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.8	0.82	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.8	0.76	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-002
Description: B-33-12	Matrix: Solid
Date Sampled: 05/28/2014 0955	% Solids: 89.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0257	JJG		47696	5.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.8	1.8	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.8	1.4	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.8	0.83	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.8	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-003
Description: B-33-15	Matrix: Solid
Date Sampled: 05/28/2014 1000	% Solids: 86.4 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0320	JJG		47696	5.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	21		20	6.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.0	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.0	0.69	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	3.0	J	9.9	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.0	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.0	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.0	0.82	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.99	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.67	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.84	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.72	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.99	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	14		5.0	0.75	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.90	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.67	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.81	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.9	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.97	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.9	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.41	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.6	ug/kg	1
Styrene	100-42-5	8260B	29		5.0	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.47	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.50	ug/kg	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.62	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.84	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.78	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-003
Description: B-33-15	Matrix: Solid
Date Sampled: 05/28/2014 1000	% Solids: 86.4 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0320	JJG		47696	5.84

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.0	0.85	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-004
Description: B-33-25	Matrix: Solid
Date Sampled: 05/28/2014 1005	% Solids: 78.7 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0100	JJG		47696	5.87

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	15	J	22	7.2	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	18		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.98	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	1.4	J	5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.85	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-004
Description: B-33-25	Matrix: Solid
Date Sampled: 05/28/2014 1005	% Solids: 78.7 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0100	JJG		47696	5.87

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	17		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	4.7	J	5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Run 1 Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	53-142
Bromofluorobenzene		90	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-005
Description: B-34-2	Matrix: Solid
Date Sampled: 05/28/2014 1700	% Solids: 86.4 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0124	JJG		47696	5.71

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	43		20	6.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.1	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.1	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.1	0.71	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.1	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.1	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.1	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.1	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.1	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.1	0.84	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.1	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.1	0.68	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.1	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.1	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.1	0.86	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.1	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.1	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.1	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.1	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.1	0.74	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.1	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.1	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.1	0.77	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.1	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.1	0.92	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.1	0.69	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.1	0.83	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.1	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.1	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.1	0.99	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.1	0.41	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.1	0.42	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.1	2.6	ug/kg	1
Styrene	100-42-5	8260B	ND		5.1	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.1	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.1	0.51	ug/kg	1
Toluene	108-88-3	8260B	ND		5.1	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.1	0.64	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.1	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.1	0.86	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.1	0.80	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-005
Description: B-34-2	Matrix: Solid
Date Sampled: 05/28/2014 1700	% Solids: 86.4 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0124	JJG		47696	5.71

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.1	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.1	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.1	0.87	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.1	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-006
Description: B-34-10	Matrix: Solid
Date Sampled: 05/28/2014 1710	% Solids: 82.8 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0147	JJG		47696	5.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	24		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	1.4	J	5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	0.83	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	1.9	J	5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-006
Description: B-34-10	Matrix: Solid
Date Sampled: 05/28/2014 1710	% Solids: 82.8 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0147	JJG		47696	5.56

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	2.6	J	5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Run 1 Q	Acceptance % Recovery	Limits
1,2-Dichloroethane-d4	91		53-142
Bromofluorobenzene	89		47-138
Toluene-d8	93		68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-007
Description: B-34-13	Matrix: Solid
Date Sampled: 05/28/2014 1715	% Solids: 77.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0210	JJG		47696	5.37

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	15	J	24	8.1	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.1	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.85	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.1	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.82	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.1	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.1	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.1	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.1	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.88	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.1	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.0	0.92	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.82	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.99	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.1	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.50	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.57	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.1	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.76	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.1	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.96	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE28056-007
Description: B-34-13	Matrix: Solid
Date Sampled: 05/28/2014 1715	% Solids: 77.0 05/28/2014 2216
Date Received: 05/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	05/29/2014 0210	JJG		47696	5.37

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	4.3	J	6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47696-001

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	05/29/2014 0013
Benzene	ND		1	5.0	1.1	ug/kg	05/29/2014 0013
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
Bromoform	ND		1	5.0	0.70	ug/kg	05/29/2014 0013
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	05/29/2014 0013
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	05/29/2014 0013
Carbon disulfide	ND		1	5.0	1.3	ug/kg	05/29/2014 0013
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	05/29/2014 0013
Chlorobenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
Chloroethane	ND		1	5.0	1.3	ug/kg	05/29/2014 0013
Chloroform	ND		1	5.0	0.83	ug/kg	05/29/2014 0013
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	05/29/2014 0013
Cyclohexane	ND		1	5.0	0.67	ug/kg	05/29/2014 0013
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	05/29/2014 0013
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	05/29/2014 0013
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	05/29/2014 0013
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	05/29/2014 0013
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	05/29/2014 0013
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	05/29/2014 0013
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	05/29/2014 0013
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	05/29/2014 0013
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	05/29/2014 0013
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	05/29/2014 0013
Ethylbenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
2-Hexanone	ND		1	10	1.3	ug/kg	05/29/2014 0013
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	05/29/2014 0013
Methyl acetate	ND		1	5.0	0.98	ug/kg	05/29/2014 0013
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	05/29/2014 0013
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	05/29/2014 0013
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	05/29/2014 0013
Methylene chloride	ND		1	5.0	2.6	ug/kg	05/29/2014 0013
Styrene	ND		1	5.0	1.1	ug/kg	05/29/2014 0013
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	05/29/2014 0013
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	05/29/2014 0013
Toluene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	05/29/2014 0013
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	05/29/2014 0013
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	05/29/2014 0013
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	05/29/2014 0013

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47696-001

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	05/29/2014 0013
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	05/29/2014 0013
Vinyl chloride	ND		1	5.0	0.86	ug/kg	05/29/2014 0013
Xylenes (total)	ND		1	5.0	2.9	ug/kg	05/29/2014 0013

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	47-138
1,2-Dichloroethane-d4		93	53-142
Toluene-d8		97	68-124

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47696-002

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	127	60-140	05/28/2014 2240
Benzene	50	48		1	96	69-123	05/28/2014 2240
Bromodichloromethane	50	47		1	94	69-121	05/28/2014 2240
Bromoform	50	45		1	91	61-119	05/28/2014 2240
Bromomethane (Methyl bromide)	50	45		1	90	10-168	05/28/2014 2240
2-Butanone (MEK)	100	110		1	108	57-148	05/28/2014 2240
Carbon disulfide	50	46		1	93	58-122	05/28/2014 2240
Carbon tetrachloride	50	47		1	94	58-136	05/28/2014 2240
Chlorobenzene	50	47		1	95	59-129	05/28/2014 2240
Chloroethane	50	49		1	99	42-163	05/28/2014 2240
Chloroform	50	47		1	94	71-125	05/28/2014 2240
Chloromethane (Methyl chloride)	50	44		1	88	34-134	05/28/2014 2240
Cyclohexane	50	48		1	96	53-139	05/28/2014 2240
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	55-125	05/28/2014 2240
Dibromochloromethane	50	47		1	94	66-119	05/28/2014 2240
1,2-Dibromoethane (EDB)	50	47		1	94	74-124	05/28/2014 2240
1,4-Dichlorobenzene	50	48		1	95	52-133	05/28/2014 2240
1,3-Dichlorobenzene	50	45		1	90	51-134	05/28/2014 2240
1,2-Dichlorobenzene	50	46		1	92	57-131	05/28/2014 2240
Dichlorodifluoromethane	50	47		1	93	10-157	05/28/2014 2240
1,2-Dichloroethane	50	48		1	96	67-129	05/28/2014 2240
1,1-Dichloroethane	50	49		1	97	71-127	05/28/2014 2240
trans-1,2-Dichloroethene	50	48		1	96	68-131	05/28/2014 2240
cis-1,2-Dichloroethene	50	48		1	97	70-122	05/28/2014 2240
1,1-Dichloroethene	50	47		1	94	69-138	05/28/2014 2240
1,2-Dichloropropane	50	47		1	94	72-124	05/28/2014 2240
trans-1,3-Dichloropropene	50	48		1	96	70-124	05/28/2014 2240
cis-1,3-Dichloropropene	50	48		1	95	70-126	05/28/2014 2240
Ethylbenzene	50	47		1	94	59-128	05/28/2014 2240
2-Hexanone	100	100		1	101	54-137	05/28/2014 2240
Isopropylbenzene	50	49		1	97	50-136	05/28/2014 2240
Methyl acetate	50	53		1	107	59-137	05/28/2014 2240
Methyl tertiary butyl ether (MTBE)	50	56		1	112	70-130	05/28/2014 2240
4-Methyl-2-pentanone	100	99		1	99	60-134	05/28/2014 2240
Methylcyclohexane	50	48		1	97	41-144	05/28/2014 2240
Methylene chloride	50	48		1	96	70-130	05/28/2014 2240
Styrene	50	49		1	97	54-136	05/28/2014 2240
1,1,2,2-Tetrachloroethane	50	48		1	95	69-132	05/28/2014 2240
Tetrachloroethene	50	46		1	91	45-150	05/28/2014 2240
Toluene	50	47		1	94	61-129	05/28/2014 2240
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	111	49-136	05/28/2014 2240
1,2,4-Trichlorobenzene	50	48		1	97	34-145	05/28/2014 2240
1,1,2-Trichloroethane	50	46		1	92	55-128	05/28/2014 2240
1,1,1-Trichloroethane	50	48		1	96	63-128	05/28/2014 2240

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47696-002

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	93	62-126	05/28/2014 2240
Trichlorofluoromethane	50	49		1	98	45-138	05/28/2014 2240
Vinyl chloride	50	48		1	96	42-132	05/28/2014 2240
Xylenes (total)	100	98		1	98	58-128	05/28/2014 2240
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	47-138				
1,2-Dichloroethane-d4		93	53-142				
Toluene-d8		99	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47696-003

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	130		1	126	0.58	60-140	20	05/28/2014 2303
Benzene	50	48		1	96	0.30	69-123	20	05/28/2014 2303
Bromodichloromethane	50	47		1	93	0.36	69-121	20	05/28/2014 2303
Bromoform	50	45		1	90	0.91	61-119	20	05/28/2014 2303
Bromomethane (Methyl bromide)	50	46		1	91	1.9	10-168	20	05/28/2014 2303
2-Butanone (MEK)	100	110		1	109	0.31	57-148	20	05/28/2014 2303
Carbon disulfide	50	44		1	89	4.3	58-122	20	05/28/2014 2303
Carbon tetrachloride	50	46		1	92	2.2	58-136	20	05/28/2014 2303
Chlorobenzene	50	46		1	93	2.4	59-129	20	05/28/2014 2303
Chloroethane	50	48		1	96	2.8	42-163	20	05/28/2014 2303
Chloroform	50	47		1	94	0.29	71-125	20	05/28/2014 2303
Chloromethane (Methyl chloride)	50	45		1	89	1.8	34-134	20	05/28/2014 2303
Cyclohexane	50	47		1	93	3.2	53-139	20	05/28/2014 2303
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	0.87	55-125	20	05/28/2014 2303
Dibromochloromethane	50	45		1	91	3.3	66-119	20	05/28/2014 2303
1,2-Dibromoethane (EDB)	50	46		1	92	1.8	74-124	20	05/28/2014 2303
1,4-Dichlorobenzene	50	48		1	95	0.27	52-133	20	05/28/2014 2303
1,3-Dichlorobenzene	50	46		1	92	1.5	51-134	20	05/28/2014 2303
1,2-Dichlorobenzene	50	46		1	92	0.30	57-131	20	05/28/2014 2303
Dichlorodifluoromethane	50	45		1	89	4.3	10-157	20	05/28/2014 2303
1,2-Dichloroethane	50	48		1	97	0.77	67-129	20	05/28/2014 2303
1,1-Dichloroethane	50	48		1	95	2.2	71-127	20	05/28/2014 2303
trans-1,2-Dichloroethene	50	47		1	95	0.79	68-131	20	05/28/2014 2303
cis-1,2-Dichloroethene	50	47		1	95	2.1	70-122	20	05/28/2014 2303
1,1-Dichloroethene	50	46		1	93	1.0	69-138	20	05/28/2014 2303
1,2-Dichloropropane	50	47		1	95	0.17	72-124	20	05/28/2014 2303
trans-1,3-Dichloropropene	50	48		1	95	0.45	70-124	20	05/28/2014 2303
cis-1,3-Dichloropropene	50	47		1	94	1.6	70-126	20	05/28/2014 2303
Ethylbenzene	50	45		1	90	4.6	59-128	20	05/28/2014 2303
2-Hexanone	100	98		1	98	3.2	54-137	20	05/28/2014 2303
Isopropylbenzene	50	47		1	94	3.6	50-136	20	05/28/2014 2303
Methyl acetate	50	54		1	107	0.15	59-137	20	05/28/2014 2303
Methyl tertiary butyl ether (MTBE)	50	55		1	110	1.5	70-130	20	05/28/2014 2303
4-Methyl-2-pentanone	100	100		1	102	2.8	60-134	20	05/28/2014 2303
Methylcyclohexane	50	47		1	93	3.9	41-144	20	05/28/2014 2303
Methylene chloride	50	47		1	94	2.1	70-130	20	05/28/2014 2303
Styrene	50	47		1	94	3.0	54-136	20	05/28/2014 2303
1,1,2,2-Tetrachloroethane	50	48		1	96	0.41	69-132	20	05/28/2014 2303
Tetrachloroethene	50	45		1	90	0.77	45-150	20	05/28/2014 2303
Toluene	50	47		1	93	0.64	61-129	20	05/28/2014 2303
1,1,2-Trichloro-1,1,2-Trifluoroethane	50	54		1	108	2.5	49-136	20	05/28/2014 2303
1,2,4-Trichlorobenzene	50	47		1	94	2.2	34-145	20	05/28/2014 2303
1,1,2-Trichloroethane	50	44		1	89	3.0	55-128	20	05/28/2014 2303
1,1,1-Trichloroethane	50	48		1	97	0.23	63-128	20	05/28/2014 2303

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47696-003

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	45		1	91	2.7	62-126	20	05/28/2014 2303
Trichlorofluoromethane	50	48		1	96	2.4	45-138	20	05/28/2014 2303
Vinyl chloride	50	49		1	97	1.1	42-132	20	05/28/2014 2303
Xylenes (total)	100	93		1	93	4.3	58-128	20	05/28/2014 2303
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		90	47-138						
1,2-Dichloroethane-d4		93	53-142						
Toluene-d8		96	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE28056-004DU

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	15	12	J	1	19	20	05/29/2014 0602
Benzene	ND	ND		1	0.00	20	05/29/2014 0602
Bromodichloromethane	ND	ND		1	0.00	20	05/29/2014 0602
Bromoform	ND	ND		1	0.00	20	05/29/2014 0602
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	05/29/2014 0602
2-Butanone (MEK)	ND	ND		1	0.00	20	05/29/2014 0602
Carbon disulfide	ND	ND		1	0.00	20	05/29/2014 0602
Carbon tetrachloride	ND	ND		1	0.00	20	05/29/2014 0602
Chlorobenzene	ND	ND		1	0.00	20	05/29/2014 0602
Chloroethane	ND	ND		1	0.00	20	05/29/2014 0602
Chloroform	ND	ND		1	0.00	20	05/29/2014 0602
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	05/29/2014 0602
Cyclohexane	ND	ND		1	0.00	20	05/29/2014 0602
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	05/29/2014 0602
Dibromochloromethane	ND	ND		1	0.00	20	05/29/2014 0602
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	05/29/2014 0602
1,2-Dichlorobenzene	ND	ND		1	0.00	20	05/29/2014 0602
1,3-Dichlorobenzene	ND	ND		1	0.00	20	05/29/2014 0602
1,4-Dichlorobenzene	ND	ND		1	0.00	20	05/29/2014 0602
Dichlorodifluoromethane	ND	ND		1	0.00	20	05/29/2014 0602
1,1-Dichloroethane	ND	ND		1	0.00	20	05/29/2014 0602
1,2-Dichloroethane	ND	ND		1	0.00	20	05/29/2014 0602
1,1-Dichloroethene	ND	ND		1	0.00	20	05/29/2014 0602
cis-1,2-Dichloroethene	18	17		1	4.9	20	05/29/2014 0602
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	05/29/2014 0602
1,2-Dichloropropane	ND	ND		1	0.00	20	05/29/2014 0602
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	05/29/2014 0602
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	05/29/2014 0602
Ethylbenzene	ND	ND		1	0.00	20	05/29/2014 0602
2-Hexanone	ND	ND		1	0.00	20	05/29/2014 0602
Isopropylbenzene	ND	ND		1	0.00	20	05/29/2014 0602
Methyl acetate	ND	ND		1	0.00	20	05/29/2014 0602
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	05/29/2014 0602
4-Methyl-2-pentanone	ND	ND		1	0.00	20	05/29/2014 0602
Methylcyclohexane	ND	ND		1	0.00	20	05/29/2014 0602
Methylene chloride	ND	ND		1	0.00	20	05/29/2014 0602
Styrene	1.4	ND		1	0.00	20	05/29/2014 0602
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	05/29/2014 0602
Tetrachloroethene	ND	ND		1	0.00	20	05/29/2014 0602
Toluene	ND	ND		1	0.00	20	05/29/2014 0602
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	05/29/2014 0602
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	05/29/2014 0602
1,1,1-Trichloroethane	ND	ND		1	0.00	20	05/29/2014 0602
1,1,2-Trichloroethane	ND	ND		1	0.00	20	05/29/2014 0602

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE28056-004DU

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	17	17		1	0.64	20	05/29/2014 0602
Trichlorofluoromethane	ND	ND		1	0.00	20	05/29/2014 0602
Vinyl chloride	4.7	5.5	J	1	17	20	05/29/2014 0602
Xylenes (total)	ND	ND		1	0.00	20	05/29/2014 0602

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE28056-005MS

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	43	100	150		1	104	60-140	05/29/2014 0625
Benzene	ND	52	42		1	81	69-123	05/29/2014 0625
Bromodichloromethane	ND	52	40		1	78	69-121	05/29/2014 0625
Bromoform	ND	52	37		1	71	61-119	05/29/2014 0625
Bromomethane (Methyl bromide)	ND	52	41		1	79	35-144	05/29/2014 0625
2-Butanone (MEK)	ND	100	96		1	92	57-148	05/29/2014 0625
Carbon disulfide	ND	52	38		1	73	58-122	05/29/2014 0625
Carbon tetrachloride	ND	52	40		1	78	58-136	05/29/2014 0625
Chlorobenzene	ND	52	38		1	73	59-129	05/29/2014 0625
Chloroethane	ND	52	43		1	83	50-132	05/29/2014 0625
Chloroform	ND	52	42		1	81	71-125	05/29/2014 0625
Chloromethane (Methyl chloride)	ND	52	40		1	78	34-134	05/29/2014 0625
Cyclohexane	ND	52	40		1	77	53-139	05/29/2014 0625
1,2-Dibromo-3-chloropropane (DBCP)	ND	52	41		1	78	55-125	05/29/2014 0625
Dibromochloromethane	ND	52	38		1	73	66-119	05/29/2014 0625
1,2-Dibromoethane (EDB)	ND	52	40		1	77	74-124	05/29/2014 0625
1,2-Dichlorobenzene	ND	52	35		1	68	57-131	05/29/2014 0625
1,3-Dichlorobenzene	ND	52	34		1	65	51-134	05/29/2014 0625
1,4-Dichlorobenzene	ND	52	34		1	66	52-133	05/29/2014 0625
Dichlorodifluoromethane	ND	52	42		1	82	10-157	05/29/2014 0625
1,1-Dichloroethane	ND	52	42		1	82	71-127	05/29/2014 0625
1,2-Dichloroethane	ND	52	42		1	82	67-129	05/29/2014 0625
1,1-Dichloroethene	ND	52	41		1	80	69-138	05/29/2014 0625
cis-1,2-Dichloroethene	ND	52	42		1	80	70-122	05/29/2014 0625
trans-1,2-Dichloroethene	ND	52	42		1	81	68-131	05/29/2014 0625
1,2-Dichloropropane	ND	52	41		1	79	72-124	05/29/2014 0625
cis-1,3-Dichloropropene	ND	52	38		1	74	70-126	05/29/2014 0625
trans-1,3-Dichloropropene	ND	52	38		1	73	70-124	05/29/2014 0625
Ethylbenzene	ND	52	37		1	72	59-128	05/29/2014 0625
2-Hexanone	ND	100	81		1	78	54-137	05/29/2014 0625
Isopropylbenzene	ND	52	37		1	72	50-136	05/29/2014 0625
Methyl acetate	ND	52	56		1	108	59-137	05/29/2014 0625
Methyl tertiary butyl ether (MTBE)	ND	52	47		1	92	70-130	05/29/2014 0625
4-Methyl-2-pentanone	ND	100	89		1	86	60-134	05/29/2014 0625
Methylcyclohexane	ND	52	37		1	72	41-144	05/29/2014 0625
Methylene chloride	ND	52	42		1	81	77-129	05/29/2014 0625
Styrene	ND	52	37		1	71	54-136	05/29/2014 0625
1,1,2,2-Tetrachloroethane	ND	52	42		1	81	69-132	05/29/2014 0625
Tetrachloroethene	ND	52	37		1	71	70-130	05/29/2014 0625
Toluene	ND	52	40		1	77	61-129	05/29/2014 0625
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	48		1	93	49-136	05/29/2014 0625
1,2,4-Trichlorobenzene	ND	52	28		1	54	34-145	05/29/2014 0625
1,1,1-Trichloroethane	ND	52	42		1	82	63-128	05/29/2014 0625
1,1,2-Trichloroethane	ND	52	40		1	77	55-128	05/29/2014 0625

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE28056-005MS

Matrix: Solid

Batch: 47696

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	52	38		1	74	62-126	05/29/2014 0625
Trichlorofluoromethane	ND	52	42		1	81	45-138	05/29/2014 0625
Vinyl chloride	ND	52	45		1	87	42-132	05/29/2014 0625
Xylenes (total)	ND	100	75		1	73	58-128	05/29/2014 0625
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		95	53-142					
Bromofluorobenzene		90	47-138					
Toluene-d8		97	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Alcon Cooler Inspected by/date: ECC 5/28/14 Lot #: PE28056

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
2. If custody seals were present, were they intact and unbroken?		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>142, 143 °C</u> / <u>1</u> / <u>1</u> °C / / / °C / / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor <u>10.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
4. Is the commercial courier's packing slip attached to this form?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
5. Were proper custody procedures (relinquished/received) followed?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5a Were samples relinquished by client to commercial courier?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
6. Were sample IDs listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
7. Were sample IDs listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
8. Was collection date & time listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
9. Was collection date & time listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
10. Did all container label information (ID, date, time) agree with the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
11. Were tests to be performed listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
12. Did all samples arrive in the proper containers for each test?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
13. Did all containers arrive in good condition (unbroken, lids on, etc.)?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
14. Was adequate sample volume available?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
16. Were any samples containers missing?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
17. Were there any excess samples not listed on COC?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
20. Were all cyanide and/or sulfide samples received at a pH >12?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
22. Were collection temperatures documented on the COC for NC samples?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	
24. Was the quote number used taken from the container label?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L. (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>[Signature]</u> Date: <u>5/28/14</u>		

Comments:

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PE29054**

Date Completed: **05/30/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE29054 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE29054

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE29054

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-25	Aqueous	05/29/2014 1115	05/29/2014
002	BOAZMAN WELL	Aqueous	05/29/2014 1310	05/29/2014
003	TB52914	Aqueous	05/29/2014 1115	05/29/2014

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE29054

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-25	Aqueous	Acetone	8260B	6.7	J	ug/L	5
001	TMW-25	Aqueous	Trichloroethene	8260B	1.8	J	ug/L	6
002	BOAZMAN WELL	Aqueous	cis-1,2-Dichloroethene	8260B	7.7	J	ug/L	7
002	BOAZMAN WELL	Aqueous	Trichloroethene	8260B	270		ug/L	8

(4 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-001
Description: TMW-25	Matrix: Aqueous
Date Sampled: 05/29/2014 1115	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/30/2014 0153	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	6.7	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-001
Description: TMW-25	Matrix: Aqueous
Date Sampled: 05/29/2014 1115	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/30/2014 0153	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	1.8	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-002
Description: BOAZMAN WELL	Matrix: Aqueous
Date Sampled: 05/29/2014 1310	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	05/30/2014 0216	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	7.7	J	25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-002
Description: BOAZMAN WELL	Matrix: Aqueous
Date Sampled: 05/29/2014 1310	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	05/30/2014 0216	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	270		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-003
Description: TB52914	Matrix: Aqueous
Date Sampled: 05/29/2014 1115	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/29/2014 2245	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29054-003
Description: TB52914	Matrix: Aqueous
Date Sampled: 05/29/2014 1115	
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	05/29/2014 2245	PMM2		47824

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47824-001

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	05/29/2014 2222
Benzene	ND		1	5.0	0.20	ug/L	05/29/2014 2222
Bromodichloromethane	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Bromoform	ND		1	5.0	0.40	ug/L	05/29/2014 2222
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	05/29/2014 2222
2-Butanone (MEK)	ND		1	10	1.8	ug/L	05/29/2014 2222
Carbon disulfide	ND		1	5.0	0.30	ug/L	05/29/2014 2222
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	05/29/2014 2222
Chlorobenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Chloroethane	ND		1	5.0	0.50	ug/L	05/29/2014 2222
Chloroform	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	05/29/2014 2222
Cyclohexane	ND		1	5.0	0.98	ug/L	05/29/2014 2222
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	05/29/2014 2222
Dibromochloromethane	ND		1	5.0	1.7	ug/L	05/29/2014 2222
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	05/29/2014 2222
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	05/29/2014 2222
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	05/29/2014 2222
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	05/29/2014 2222
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	05/29/2014 2222
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	05/29/2014 2222
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	05/29/2014 2222
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	05/29/2014 2222
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/29/2014 2222
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	05/29/2014 2222
Ethylbenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
2-Hexanone	ND		1	10	1.0	ug/L	05/29/2014 2222
Isopropylbenzene	ND		1	5.0	1.0	ug/L	05/29/2014 2222
Methyl acetate	ND		1	5.0	0.72	ug/L	05/29/2014 2222
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	05/29/2014 2222
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	05/29/2014 2222
Methylcyclohexane	ND		1	5.0	0.95	ug/L	05/29/2014 2222
Methylene chloride	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Styrene	ND		1	5.0	0.10	ug/L	05/29/2014 2222
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	05/29/2014 2222
Tetrachloroethene	ND		1	5.0	0.40	ug/L	05/29/2014 2222
Toluene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	05/29/2014 2222
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	05/29/2014 2222
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	05/29/2014 2222
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	05/29/2014 2222

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47824-001

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	05/29/2014 2222
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	05/29/2014 2222
Vinyl chloride	ND		1	2.0	0.10	ug/L	05/29/2014 2222
Xylenes (total)	ND		1	5.0	1.7	ug/L	05/29/2014 2222
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		99	70-130				
Toluene-d8		103	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47824-002

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	107	60-140	05/29/2014 2046
Benzene	50	51		1	103	70-130	05/29/2014 2046
Bromodichloromethane	50	51		1	102	70-130	05/29/2014 2046
Bromoform	50	50		1	101	70-130	05/29/2014 2046
Bromomethane (Methyl bromide)	50	41		1	82	60-140	05/29/2014 2046
2-Butanone (MEK)	100	110		1	111	60-140	05/29/2014 2046
Carbon disulfide	50	44		1	88	60-140	05/29/2014 2046
Carbon tetrachloride	50	49		1	99	70-130	05/29/2014 2046
Chlorobenzene	50	50		1	101	70-130	05/29/2014 2046
Chloroethane	50	46		1	93	42-163	05/29/2014 2046
Chloroform	50	51		1	101	70-130	05/29/2014 2046
Chloromethane (Methyl chloride)	50	48		1	97	60-140	05/29/2014 2046
Cyclohexane	50	49		1	99	70-130	05/29/2014 2046
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	70-130	05/29/2014 2046
Dibromochloromethane	50	51		1	102	70-130	05/29/2014 2046
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	05/29/2014 2046
1,3-Dichlorobenzene	50	51		1	102	70-130	05/29/2014 2046
1,4-Dichlorobenzene	50	50		1	100	70-130	05/29/2014 2046
1,2-Dichlorobenzene	50	50		1	100	70-130	05/29/2014 2046
Dichlorodifluoromethane	50	47		1	94	60-140	05/29/2014 2046
1,1-Dichloroethane	50	50		1	100	70-130	05/29/2014 2046
1,2-Dichloroethane	50	50		1	101	70-130	05/29/2014 2046
trans-1,2-Dichloroethene	50	52		1	105	70-130	05/29/2014 2046
1,1-Dichloroethene	50	49		1	98	70-130	05/29/2014 2046
cis-1,2-Dichloroethene	50	52		1	103	70-130	05/29/2014 2046
1,2-Dichloropropane	50	52		1	104	70-130	05/29/2014 2046
cis-1,3-Dichloropropene	50	54		1	109	70-130	05/29/2014 2046
trans-1,3-Dichloropropene	50	54		1	108	70-130	05/29/2014 2046
Ethylbenzene	50	52		1	104	70-130	05/29/2014 2046
2-Hexanone	100	110		1	108	60-140	05/29/2014 2046
Isopropylbenzene	50	54		1	107	70-130	05/29/2014 2046
Methyl acetate	50	52		1	103	70-130	05/29/2014 2046
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	05/29/2014 2046
4-Methyl-2-pentanone	100	100		1	103	60-140	05/29/2014 2046
Methylcyclohexane	50	52		1	104	70-130	05/29/2014 2046
Methylene chloride	50	45		1	90	70-130	05/29/2014 2046
Styrene	50	52		1	104	70-130	05/29/2014 2046
1,1,2,2-Tetrachloroethane	50	53		1	105	70-130	05/29/2014 2046
Tetrachloroethene	50	49		1	98	70-130	05/29/2014 2046
Toluene	50	54		1	107	70-130	05/29/2014 2046
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	117	70-130	05/29/2014 2046
1,2,4-Trichlorobenzene	50	49		1	98	70-130	05/29/2014 2046
1,1,1-Trichloroethane	50	49		1	98	70-130	05/29/2014 2046
1,1,2-Trichloroethane	50	52		1	103	70-130	05/29/2014 2046

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47824-002

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	05/29/2014 2046
Trichlorofluoromethane	50	54		1	108	70-130	05/29/2014 2046
Vinyl chloride	50	46		1	92	70-130	05/29/2014 2046
Xylenes (total)	100	100		1	103	70-130	05/29/2014 2046
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		96	70-130				
Toluene-d8		103	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47824-003

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	87	+	1	87	21	60-140	20	05/29/2014 2111
Benzene	50	49		1	98	4.8	70-130	20	05/29/2014 2111
Bromodichloromethane	50	49		1	97	4.6	70-130	20	05/29/2014 2111
Bromoform	50	48		1	95	5.6	70-130	20	05/29/2014 2111
Bromomethane (Methyl bromide)	50	36		1	73	12	60-140	20	05/29/2014 2111
2-Butanone (MEK)	100	100		1	102	8.6	60-140	20	05/29/2014 2111
Carbon disulfide	50	40		1	81	8.1	60-140	20	05/29/2014 2111
Carbon tetrachloride	50	48		1	96	2.3	70-130	20	05/29/2014 2111
Chlorobenzene	50	48		1	96	4.9	70-130	20	05/29/2014 2111
Chloroethane	50	43		1	86	7.6	42-163	20	05/29/2014 2111
Chloroform	50	48		1	97	4.6	70-130	20	05/29/2014 2111
Chloromethane (Methyl chloride)	50	44		1	88	9.6	60-140	20	05/29/2014 2111
Cyclohexane	50	48		1	96	2.5	70-130	20	05/29/2014 2111
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	5.2	70-130	20	05/29/2014 2111
Dibromochloromethane	50	48		1	96	5.8	70-130	20	05/29/2014 2111
1,2-Dibromoethane (EDB)	50	50		1	100	4.3	70-130	20	05/29/2014 2111
1,3-Dichlorobenzene	50	49		1	98	3.9	70-130	20	05/29/2014 2111
1,4-Dichlorobenzene	50	49		1	97	3.0	70-130	20	05/29/2014 2111
1,2-Dichlorobenzene	50	48		1	96	3.7	70-130	20	05/29/2014 2111
Dichlorodifluoromethane	50	44		1	89	6.1	60-140	20	05/29/2014 2111
1,1-Dichloroethane	50	48		1	95	5.1	70-130	20	05/29/2014 2111
1,2-Dichloroethane	50	48		1	96	4.8	70-130	20	05/29/2014 2111
trans-1,2-Dichloroethene	50	49		1	99	5.8	70-130	20	05/29/2014 2111
1,1-Dichloroethene	50	46		1	92	6.3	70-130	20	05/29/2014 2111
cis-1,2-Dichloroethene	50	49		1	98	5.8	70-130	20	05/29/2014 2111
1,2-Dichloropropane	50	50		1	100	3.8	70-130	20	05/29/2014 2111
cis-1,3-Dichloropropene	50	52		1	104	4.6	70-130	20	05/29/2014 2111
trans-1,3-Dichloropropene	50	51		1	102	6.2	70-130	20	05/29/2014 2111
Ethylbenzene	50	49		1	98	6.6	70-130	20	05/29/2014 2111
2-Hexanone	100	100		1	102	6.1	60-140	20	05/29/2014 2111
Isopropylbenzene	50	52		1	105	2.3	70-130	20	05/29/2014 2111
Methyl acetate	50	49		1	98	5.3	70-130	20	05/29/2014 2111
Methyl tertiary butyl ether (MTBE)	50	49		1	98	3.0	70-130	20	05/29/2014 2111
4-Methyl-2-pentanone	100	100		1	100	3.6	60-140	20	05/29/2014 2111
Methylcyclohexane	50	50		1	99	4.3	70-130	20	05/29/2014 2111
Methylene chloride	50	43		1	85	5.9	70-130	20	05/29/2014 2111
Styrene	50	49		1	98	5.9	70-130	20	05/29/2014 2111
1,1,2,2-Tetrachloroethane	50	53		1	105	0.15	70-130	20	05/29/2014 2111
Tetrachloroethene	50	47		1	94	4.0	70-130	20	05/29/2014 2111
Toluene	50	52		1	104	3.4	70-130	20	05/29/2014 2111
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	110	6.3	70-130	20	05/29/2014 2111
1,2,4-Trichlorobenzene	50	46		1	92	5.6	70-130	20	05/29/2014 2111
1,1,1-Trichloroethane	50	47		1	93	4.6	70-130	20	05/29/2014 2111
1,1,2-Trichloroethane	50	49		1	97	5.7	70-130	20	05/29/2014 2111

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47824-003

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	95	5.1	70-130	20	05/29/2014 2111
Trichlorofluoromethane	50	51		1	101	6.8	70-130	20	05/29/2014 2111
Vinyl chloride	50	43		1	86	6.5	70-130	20	05/29/2014 2111
Xylenes (total)	100	97		1	97	5.5	70-130	20	05/29/2014 2111
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		94	70-130						
1,2-Dichloroethane-d4		95	70-130						
Toluene-d8		103	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE29054-002MS

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	500	5		100	60-140	05/30/2014 0634
Benzene	ND	250	270	5		106	70-130	05/30/2014 0634
Bromodichloromethane	ND	250	260	5		103	71-143	05/30/2014 0634
Bromoform	ND	250	230	5		93	65-131	05/30/2014 0634
Bromomethane (Methyl bromide)	ND	250	220	5		90	36-168	05/30/2014 0634
2-Butanone (MEK)	ND	500	520	5		105	60-140	05/30/2014 0634
Carbon disulfide	ND	250	220	5		86	60-140	05/30/2014 0634
Carbon tetrachloride	ND	250	270	5		107	37-166	05/30/2014 0634
Chlorobenzene	ND	250	260	5		104	78-129	05/30/2014 0634
Chloroethane	ND	250	250	5		99	60-140	05/30/2014 0634
Chloroform	ND	250	260	5		103	63-123	05/30/2014 0634
Chloromethane (Methyl chloride)	ND	250	240	5		97	20-158	05/30/2014 0634
Cyclohexane	ND	250	250	5		98	70-130	05/30/2014 0634
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	250	5		100	70-130	05/30/2014 0634
Dibromochloromethane	ND	250	250	5		101	74-134	05/30/2014 0634
1,2-Dibromoethane (EDB)	ND	250	260	5		105	70-130	05/30/2014 0634
1,2-Dichlorobenzene	ND	250	250	5		102	70-130	05/30/2014 0634
1,3-Dichlorobenzene	ND	250	260	5		105	70-130	05/30/2014 0634
1,4-Dichlorobenzene	ND	250	260	5		102	70-130	05/30/2014 0634
Dichlorodifluoromethane	ND	250	240	5		97	10-158	05/30/2014 0634
1,1-Dichloroethane	ND	250	260	5		103	69-132	05/30/2014 0634
1,2-Dichloroethane	ND	250	260	5		102	70-130	05/30/2014 0634
1,1-Dichloroethene	ND	250	260	5		104	50-132	05/30/2014 0634
cis-1,2-Dichloroethene	7.7	250	270	5		106	70-130	05/30/2014 0634
trans-1,2-Dichloroethene	ND	250	270	5		106	70-130	05/30/2014 0634
1,2-Dichloropropane	ND	250	270	5		109	71-126	05/30/2014 0634
cis-1,3-Dichloropropene	ND	250	260	5		105	69-130	05/30/2014 0634
trans-1,3-Dichloropropene	ND	250	260	5		102	73-131	05/30/2014 0634
Ethylbenzene	ND	250	270	5		108	70-130	05/30/2014 0634
2-Hexanone	ND	500	540	5		107	60-140	05/30/2014 0634
Isopropylbenzene	ND	250	280	5		113	70-130	05/30/2014 0634
Methyl acetate	ND	250	250	5		98	15-128	05/30/2014 0634
Methyl tertiary butyl ether (MTBE)	ND	250	250	5		100	70-130	05/30/2014 0634
4-Methyl-2-pentanone	ND	500	520	5		104	60-140	05/30/2014 0634
Methylcyclohexane	ND	250	270	5		107	70-130	05/30/2014 0634
Methylene chloride	ND	250	240	5		96	69-129	05/30/2014 0634
Styrene	ND	250	270	5		106	70-130	05/30/2014 0634
1,1,2,2-Tetrachloroethane	ND	250	270	5		109	60-155	05/30/2014 0634
Tetrachloroethene	ND	250	260	5		103	70-130	05/30/2014 0634
Toluene	ND	250	280	5		112	70-130	05/30/2014 0634
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	300	5		122	70-130	05/30/2014 0634
1,2,4-Trichlorobenzene	ND	250	250	5		101	70-130	05/30/2014 0634
1,1,1-Trichloroethane	ND	250	270	5		106	77-132	05/30/2014 0634
1,1,2-Trichloroethane	ND	250	260	5		104	77-132	05/30/2014 0634

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE29054-002MS

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	270	250	520		5	102	73-124	05/30/2014 0634
Trichlorofluoromethane	ND	250	290		5	117	60-140	05/30/2014 0634
Vinyl chloride	ND	250	250		5	99	29-159	05/30/2014 0634
Xylenes (total)	ND	500	530		5	106	70-130	05/30/2014 0634
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		98	70-130					
Bromofluorobenzene		97	70-130					
Toluene-d8		105	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PE29054-002MD

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	460	5		91	9.1	60-140	20	05/30/2014 0657
Benzene	ND	250	260	5		106	0.50	70-130	20	05/30/2014 0657
Bromodichloromethane	ND	250	250	5		102	1.5	71-143	20	05/30/2014 0657
Bromoform	ND	250	230	5		91	2.6	65-131	20	05/30/2014 0657
Bromomethane (Methyl bromide)	ND	250	230	5		91	1.4	36-168	20	05/30/2014 0657
2-Butanone (MEK)	ND	500	520	5		104	0.54	60-140	20	05/30/2014 0657
Carbon disulfide	ND	250	220	5		88	2.1	60-140	20	05/30/2014 0657
Carbon tetrachloride	ND	250	270	5		109	1.8	37-166	20	05/30/2014 0657
Chlorobenzene	ND	250	260	5		103	1.5	78-129	20	05/30/2014 0657
Chloroethane	ND	250	250	5		98	0.68	60-140	20	05/30/2014 0657
Chloroform	ND	250	260	5		104	0.60	63-123	20	05/30/2014 0657
Chloromethane (Methyl chloride)	ND	250	240	5		96	1.7	20-158	20	05/30/2014 0657
Cyclohexane	ND	250	250	5		101	2.5	70-130	20	05/30/2014 0657
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240	5		97	3.4	70-130	20	05/30/2014 0657
Dibromochloromethane	ND	250	250	5		98	2.3	74-134	20	05/30/2014 0657
1,2-Dibromoethane (EDB)	ND	250	260	5		105	0.30	70-130	20	05/30/2014 0657
1,2-Dichlorobenzene	ND	250	250	5		99	2.2	70-130	20	05/30/2014 0657
1,3-Dichlorobenzene	ND	250	260	5		103	1.6	70-130	20	05/30/2014 0657
1,4-Dichlorobenzene	ND	250	250	5		102	0.34	70-130	20	05/30/2014 0657
Dichlorodifluoromethane	ND	250	230	5		94	2.8	10-158	20	05/30/2014 0657
1,1-Dichloroethane	ND	250	260	5		103	0.23	69-132	20	05/30/2014 0657
1,2-Dichloroethane	ND	250	260	5		103	0.37	70-130	20	05/30/2014 0657
1,1-Dichloroethene	ND	250	260	5		105	1.0	50-132	20	05/30/2014 0657
cis-1,2-Dichloroethene	7.7	250	270	5		106	0.50	70-130	20	05/30/2014 0657
trans-1,2-Dichloroethene	ND	250	270	5		107	0.35	70-130	20	05/30/2014 0657
1,2-Dichloropropane	ND	250	270	5		106	2.2	71-126	20	05/30/2014 0657
cis-1,3-Dichloropropene	ND	250	260	5		103	2.1	69-130	20	05/30/2014 0657
trans-1,3-Dichloropropene	ND	250	250	5		102	0.80	73-131	20	05/30/2014 0657
Ethylbenzene	ND	250	260	5		106	1.9	70-130	20	05/30/2014 0657
2-Hexanone	ND	500	520	5		105	2.4	60-140	20	05/30/2014 0657
Isopropylbenzene	ND	250	280	5		113	0.36	70-130	20	05/30/2014 0657
Methyl acetate	ND	250	250	5		99	0.37	15-128	20	05/30/2014 0657
Methyl tertiary butyl ether (MTBE)	ND	250	250	5		101	0.61	70-130	20	05/30/2014 0657
4-Methyl-2-pentanone	ND	500	510	5		102	2.2	60-140	20	05/30/2014 0657
Methylcyclohexane	ND	250	270	5		107	0.86	70-130	20	05/30/2014 0657
Methylene chloride	ND	250	240	5		96	0.29	69-129	20	05/30/2014 0657
Styrene	ND	250	260	5		104	1.6	70-130	20	05/30/2014 0657
1,1,2,2-Tetrachloroethane	ND	250	270	5		107	1.6	60-155	20	05/30/2014 0657
Tetrachloroethene	ND	250	260	5		103	0.36	70-130	20	05/30/2014 0657
Toluene	ND	250	270	5		109	2.0	70-130	20	05/30/2014 0657
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	310	5		123	1.0	70-130	20	05/30/2014 0657
1,2,4-Trichlorobenzene	ND	250	240	5		96	5.5	70-130	20	05/30/2014 0657
1,1,1-Trichloroethane	ND	250	260	5		106	0.21	77-132	20	05/30/2014 0657
1,1,2-Trichloroethane	ND	250	260	5		103	0.41	77-132	20	05/30/2014 0657

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PE29054-002MD

Matrix: Aqueous

Batch: 47824

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Trichloroethene	270	250	510		5	96	3.2	73-124	20	05/30/2014 0657	
Trichlorofluoromethane	ND	250	290		5	116	0.33	60-140	20	05/30/2014 0657	
Vinyl chloride	ND	250	240		5	97	1.5	29-159	20	05/30/2014 0657	
Xylenes (total)	ND	500	530		5	105	0.60	70-130	20	05/30/2014 0657	
Surrogate	Q	% Rec	Acceptance Limit								
1,2-Dichloroethane-d4		96	70-130								
Bromofluorobenzene		96	70-130								
Toluene-d8		104	70-130								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Number 17990

Chain of Custody Record

Client AECOM	Report to Contact Scott Gross	Sampler (Printed Name) Scott Gross	Quote No.	Waybill No.	Page 1 of 2
Address 3820 Fiber Place, St. 300		Telephone No. / Fax No. / Email (803) 201-9662		Barcode PE29054	
City Charleston	State SC	Zip Code 29405	Project Name Shakespeare Newbery		
Project Number 60318382.5		P.O. Number			
Sample ID / Description (Criteria for each sample may be combined on one line)		Date	Time	Matrix	
B-36-6		5/25/14	1015	G	S
B-36-11			1020	↓	↓
B-36-14			1025		
B-35-6			1115	X	
B-35-11			1200	X	
B-35-14			1150	X	
Boazman Nod			1310	X	
B-37-7			1430	X	
B-37-10			1740	X	
Turn Around Time Required (Prior lab approval required for expedite) (W)		Sample Disposal			
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) (24-48 hrs)		<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab			
1. Relinquished by / Sampler <i>[Signature]</i>		Date	Time	Date	
2. Relinquished by				5/29/14 1721	
3. Relinquished by		Date	Time	Date	
4. Relinquished by		Date	Time	Date	
Possible Hazard Identification		QC Requirements (Specify)		Possible Hazard Identification	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown		1. Received by		Date	
		2. Received by		Date	
		3. Received by		Date	
		4. Laboratory Received by <i>[Signature]</i>		Date 5/29/14 1721	
LAB USE ONLY		Received on Ice (Check) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> No		Receipt Temp. 6.0 °C	

Remarks / Cooler ID

17990

24 hrs
 24 hr record
 For TMS 25
 and Boazman
 Well Samples

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PE29055**

Date Completed: **06/02/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE29055 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE29055

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE29055

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-36-6	Solid	05/29/2014 1015	05/29/2014
002	B-36-11	Solid	05/29/2014 1020	05/29/2014
003	B-36-14	Solid	05/29/2014 1025	05/29/2014
004	B-35-6	Solid	05/29/2014 1140	05/29/2014
005	B-35-11	Solid	05/29/2014 1200	05/29/2014
006	B-35-14	Solid	05/29/2014 1150	05/29/2014
007	B-37-7	Solid	05/29/2014 1430	05/29/2014
008	B-37-10	Solid	05/29/2014 1440	05/29/2014
009	B-37-12	Solid	05/29/2014 1450	05/29/2014

(9 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE29055

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	B-36-6	Solid	Acetone	8260B	27		ug/kg	5
002	B-36-11	Solid	Acetone	8260B	23		ug/kg	7
003	B-36-14	Solid	Acetone	8260B	20	J	ug/kg	9
004	B-35-6	Solid	Acetone	8260B	11	J	ug/kg	11
005	B-35-11	Solid	Acetone	8260B	18	J	ug/kg	13
006	B-35-14	Solid	Acetone	8260B	9.7	J	ug/kg	15
007	B-37-7	Solid	Acetone	8260B	11	J	ug/kg	17
008	B-37-10	Solid	Acetone	8260B	23		ug/kg	19
008	B-37-10	Solid	2-Butanone (MEK)	8260B	4.4	J	ug/kg	19

(9 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-001
Description: B-36-6	Matrix: Solid
Date Sampled: 05/29/2014 1015	% Solids: 80.6 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1336	JJG		47960	5.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	27		23	7.7	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.80	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.7	0.95	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.77	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.97	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.7	0.87	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.78	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.94	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.46	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.47	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.54	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.72	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.97	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.90	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-001
Description: B-36-6	Matrix: Solid
Date Sampled: 05/29/2014 1015	% Solids: 80.6 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1336	JJG		47960	5.43

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.7	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.98	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		89	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-002
Description: B-36-11	Matrix: Solid
Date Sampled: 05/29/2014 1020	% Solids: 78.2 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1359	JJG		47960	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	23		23	7.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.8	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.8	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.8	0.82	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.8	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.8	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.8	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.8	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.8	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.8	0.97	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.8	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.8	0.79	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.8	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.8	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.8	0.99	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.8	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.8	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.8	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.8	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.8	0.85	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.8	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.8	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.8	0.89	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.8	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.8	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.8	0.79	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.8	0.96	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.8	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.8	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.8	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.8	0.47	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.8	0.48	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.8	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.8	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.8	0.55	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.8	0.58	ug/kg	1
Toluene	108-88-3	8260B	ND		5.8	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.8	0.74	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.8	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.8	0.99	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.8	0.92	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-002
Description: B-36-11	Matrix: Solid
Date Sampled: 05/29/2014 1020	% Solids: 78.2 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1359	JJG		47960	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.8	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.8	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.8	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.8	3.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		84	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-003
Description: B-36-14	Matrix: Solid
Date Sampled: 05/29/2014 1025	% Solids: 77.2 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1422	JJG		47960	5.15

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	20	J	25	8.4	ug/kg	1
Benzene	71-43-2	8260B	ND		6.3	1.4	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.3	2.1	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.3	0.88	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.3	2.3	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		13	3.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.3	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.3	2.3	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.3	2.1	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.3	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.3	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.3	1.3	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.3	0.85	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.3	1.9	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.3	2.1	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.3	1.1	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.3	2.1	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.3	2.1	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.3	2.1	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.3	2.0	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.3	0.92	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.3	1.3	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.3	2.1	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.3	0.96	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.3	1.9	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.3	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.3	0.86	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.3	1.0	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.3	2.1	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		13	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.3	0.29	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.3	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.3	0.50	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		13	1.9	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.3	0.52	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.3	3.3	ug/kg	1
Styrene	100-42-5	8260B	ND		6.3	1.4	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.3	0.59	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.3	0.63	ug/kg	1
Toluene	108-88-3	8260B	ND		6.3	2.1	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.3	0.79	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.3	2.1	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.3	1.1	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.3	0.99	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-003
Description: B-36-14	Matrix: Solid
Date Sampled: 05/29/2014 1025	% Solids: 77.2 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1422	JJG		47960	5.15

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.3	2.4	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.3	1.9	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.3	1.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.3	3.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		90	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-004
Description: B-35-6	Matrix: Solid
Date Sampled: 05/29/2014 1140	% Solids: 82.0 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1445	JJG		47960	4.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	25	8.3	ug/kg	1
Benzene	71-43-2	8260B	ND		6.2	1.4	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.2	2.1	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.2	0.87	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.2	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	3.0	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.2	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.2	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.2	2.1	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.2	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.2	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.2	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.2	0.84	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.2	1.9	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.2	2.1	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.2	1.1	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.2	2.1	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.2	2.1	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.2	2.1	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.2	2.0	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.2	0.91	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.2	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.2	2.1	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.2	0.95	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.2	1.9	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.2	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.2	0.85	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.2	1.0	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.2	2.1	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.2	0.29	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.2	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.2	0.50	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.9	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.2	0.51	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.2	3.2	ug/kg	1
Styrene	100-42-5	8260B	ND		6.2	1.4	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.2	0.58	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.2	0.62	ug/kg	1
Toluene	108-88-3	8260B	ND		6.2	2.1	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.2	0.78	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.2	2.1	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.2	1.1	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.2	0.98	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-004
Description: B-35-6	Matrix: Solid
Date Sampled: 05/29/2014 1140	% Solids: 82.0 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1445	JJG		47960	4.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.2	2.4	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.2	1.9	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.2	1.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.2	3.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		88	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-005
Description: B-35-11	Matrix: Solid
Date Sampled: 05/29/2014 1200	% Solids: 80.0 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1508	JJG		47960	5.55

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	18	J	23	7.5	ug/kg	1
Benzene	71-43-2	8260B	ND		5.6	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.6	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.6	0.79	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.6	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.6	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.6	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.6	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.6	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.6	0.93	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.6	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.6	0.76	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.6	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.6	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.6	0.96	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.6	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.6	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.6	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.6	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.6	0.82	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.6	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.6	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.6	0.86	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.6	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.6	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.6	0.77	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.6	0.92	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.6	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.6	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.6	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.6	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.6	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.6	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.6	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.6	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.6	0.56	ug/kg	1
Toluene	108-88-3	8260B	ND		5.6	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.6	0.71	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.6	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.6	0.96	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.6	0.89	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-005
Description: B-35-11	Matrix: Solid
Date Sampled: 05/29/2014 1200	% Solids: 80.0 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1508	JJG		47960	5.55

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.6	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.6	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.6	0.97	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.6	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-006
Description: B-35-14	Matrix: Solid
Date Sampled: 05/29/2014 1150	% Solids: 78.3 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1532	JJG		47960	5.34

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	9.7	J	24	8.0	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.84	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	0.99	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.81	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.87	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.0	0.91	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.81	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.98	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.56	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.75	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.95	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-006
Description: B-35-14	Matrix: Solid
Date Sampled: 05/29/2014 1150	% Solids: 78.3 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1532	JJG		47960	5.34

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		90	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-007
Description: B-37-7	Matrix: Solid
Date Sampled: 05/29/2014 1430	% Solids: 82.4 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1555	JJG		47960	5.36

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	23	7.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.79	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.7	0.94	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.76	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.96	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.7	0.86	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.77	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.93	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.71	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.96	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.89	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-007
Description: B-37-7	Matrix: Solid
Date Sampled: 05/29/2014 1430	% Solids: 82.4 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1555	JJG		47960	5.36

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.7	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.97	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	53-142
Bromofluorobenzene		81	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-008
Description: B-37-10	Matrix: Solid
Date Sampled: 05/29/2014 1440	% Solids: 80.8 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1618	JJG		47960	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	23		23	7.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.79	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	4.4	J	11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.7	0.94	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.76	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.96	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.7	0.86	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.77	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.93	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.71	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.96	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.89	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-008
Description: B-37-10	Matrix: Solid
Date Sampled: 05/29/2014 1440	% Solids: 80.8 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1618	JJG		47960	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.7	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.97	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-009
Description: B-37-12	Matrix: Solid
Date Sampled: 05/29/2014 1450	% Solids: 83.5 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1641	JJG		47960	4.99

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		24	8.0	ug/kg	1
Benzene	71-43-2	8260B	ND		6.0	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		6.0	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		6.0	0.84	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		6.0	2.2	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.9	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		6.0	1.6	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		6.0	2.2	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		6.0	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		6.0	1.6	ug/kg	1
Chloroform	67-66-3	8260B	ND		6.0	1.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		6.0	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		6.0	0.81	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		6.0	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		6.0	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		6.0	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		6.0	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		6.0	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		6.0	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		6.0	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		6.0	0.88	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		6.0	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		6.0	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		6.0	0.91	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		6.0	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		6.0	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		6.0	0.82	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		6.0	0.98	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		6.0	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.6	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		6.0	0.28	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		6.0	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		6.0	0.48	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		6.0	0.49	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		6.0	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		6.0	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		6.0	0.56	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		6.0	0.60	ug/kg	1
Toluene	108-88-3	8260B	ND		6.0	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		6.0	0.76	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		6.0	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		6.0	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		6.0	0.95	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE29055-009
Description: B-37-12	Matrix: Solid
Date Sampled: 05/29/2014 1450	% Solids: 83.5 05/29/2014 2108
Date Received: 05/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/01/2014 1641	JJG		47960	4.99

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		6.0	2.3	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		6.0	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		6.0	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		6.0	3.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	53-142
Bromofluorobenzene		85	47-138
Toluene-d8		91	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47960-001

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	06/01/2014 1312
Benzene	ND		1	5.0	1.1	ug/kg	06/01/2014 1312
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
Bromoform	ND		1	5.0	0.70	ug/kg	06/01/2014 1312
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	06/01/2014 1312
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	06/01/2014 1312
Carbon disulfide	ND		1	5.0	1.3	ug/kg	06/01/2014 1312
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	06/01/2014 1312
Chlorobenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
Chloroethane	ND		1	5.0	1.3	ug/kg	06/01/2014 1312
Chloroform	ND		1	5.0	0.83	ug/kg	06/01/2014 1312
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	06/01/2014 1312
Cyclohexane	ND		1	5.0	0.67	ug/kg	06/01/2014 1312
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	06/01/2014 1312
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	06/01/2014 1312
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	06/01/2014 1312
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	06/01/2014 1312
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	06/01/2014 1312
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	06/01/2014 1312
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	06/01/2014 1312
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	06/01/2014 1312
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	06/01/2014 1312
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	06/01/2014 1312
Ethylbenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
2-Hexanone	ND		1	10	1.3	ug/kg	06/01/2014 1312
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	06/01/2014 1312
Methyl acetate	ND		1	5.0	0.98	ug/kg	06/01/2014 1312
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	06/01/2014 1312
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	06/01/2014 1312
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	06/01/2014 1312
Methylene chloride	ND		1	5.0	2.6	ug/kg	06/01/2014 1312
Styrene	ND		1	5.0	1.1	ug/kg	06/01/2014 1312
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	06/01/2014 1312
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	06/01/2014 1312
Toluene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	06/01/2014 1312
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	06/01/2014 1312
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	06/01/2014 1312
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	06/01/2014 1312

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47960-001

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	06/01/2014 1312
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	06/01/2014 1312
Vinyl chloride	ND		1	5.0	0.86	ug/kg	06/01/2014 1312
Xylenes (total)	ND		1	5.0	2.9	ug/kg	06/01/2014 1312
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		83	47-138				
1,2-Dichloroethane-d4		88	53-142				
Toluene-d8		89	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47960-002

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	109	60-140	06/01/2014 1141
Benzene	50	40		1	79	69-123	06/01/2014 1141
Bromodichloromethane	50	39		1	77	69-121	06/01/2014 1141
Bromoform	50	38		1	75	61-119	06/01/2014 1141
Bromomethane (Methyl bromide)	50	42		1	84	10-168	06/01/2014 1141
2-Butanone (MEK)	100	92		1	92	57-148	06/01/2014 1141
Carbon disulfide	50	40		1	80	58-122	06/01/2014 1141
Carbon tetrachloride	50	41		1	83	58-136	06/01/2014 1141
Chlorobenzene	50	38		1	77	59-129	06/01/2014 1141
Chloroethane	50	43		1	87	42-163	06/01/2014 1141
Chloroform	50	41		1	82	71-125	06/01/2014 1141
Chloromethane (Methyl chloride)	50	42		1	85	34-134	06/01/2014 1141
Cyclohexane	50	42		1	83	53-139	06/01/2014 1141
1,2-Dibromo-3-chloropropane (DBCP)	50	40		1	80	55-125	06/01/2014 1141
Dibromochloromethane	50	37		1	75	66-119	06/01/2014 1141
1,2-Dibromoethane (EDB)	50	38		1	76	74-124	06/01/2014 1141
1,3-Dichlorobenzene	50	39		1	78	51-134	06/01/2014 1141
1,2-Dichlorobenzene	50	40		1	81	57-131	06/01/2014 1141
1,4-Dichlorobenzene	50	39		1	78	52-133	06/01/2014 1141
Dichlorodifluoromethane	50	44		1	89	10-157	06/01/2014 1141
1,1-Dichloroethane	50	42		1	83	71-127	06/01/2014 1141
1,2-Dichloroethane	50	41		1	83	67-129	06/01/2014 1141
1,1-Dichloroethene	50	42		1	83	69-138	06/01/2014 1141
cis-1,2-Dichloroethene	50	41		1	83	70-122	06/01/2014 1141
trans-1,2-Dichloroethene	50	42		1	85	68-131	06/01/2014 1141
1,2-Dichloropropane	50	39		1	78	72-124	06/01/2014 1141
cis-1,3-Dichloropropene	50	39		1	78	70-126	06/01/2014 1141
trans-1,3-Dichloropropene	50	38		1	77	70-124	06/01/2014 1141
Ethylbenzene	50	38		1	77	59-128	06/01/2014 1141
2-Hexanone	100	81		1	81	54-137	06/01/2014 1141
Isopropylbenzene	50	41		1	82	50-136	06/01/2014 1141
Methyl acetate	50	45		1	89	59-137	06/01/2014 1141
Methyl tertiary butyl ether (MTBE)	50	43		1	86	70-130	06/01/2014 1141
4-Methyl-2-pentanone	100	83		1	83	60-134	06/01/2014 1141
Methylcyclohexane	50	40		1	81	41-144	06/01/2014 1141
Methylene chloride	50	43		1	85	70-130	06/01/2014 1141
Styrene	50	39		1	77	54-136	06/01/2014 1141
1,1,2,2-Tetrachloroethane	50	41		1	82	69-132	06/01/2014 1141
Tetrachloroethene	50	38		1	77	45-150	06/01/2014 1141
Toluene	50	39		1	78	61-129	06/01/2014 1141
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	99	49-136	06/01/2014 1141
1,2,4-Trichlorobenzene	50	39		1	79	34-145	06/01/2014 1141
1,1,2-Trichloroethane	50	37		1	74	55-128	06/01/2014 1141
1,1,1-Trichloroethane	50	43		1	87	63-128	06/01/2014 1141

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47960-002

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	38		1	77	62-126	06/01/2014 1141
Trichlorofluoromethane	50	44		1	88	45-138	06/01/2014 1141
Vinyl chloride	50	44		1	88	42-132	06/01/2014 1141
Xylenes (total)	100	78		1	78	58-128	06/01/2014 1141
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		82	47-138				
1,2-Dichloroethane-d4		82	53-142				
Toluene-d8		87	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47960-003

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	113	3.3	60-140	20	06/01/2014 1204
Benzene	50	40		1	80	1.8	69-123	20	06/01/2014 1204
Bromodichloromethane	50	40		1	80	4.1	69-121	20	06/01/2014 1204
Bromoform	50	39		1	78	2.8	61-119	20	06/01/2014 1204
Bromomethane (Methyl bromide)	50	40		1	80	4.0	10-168	20	06/01/2014 1204
2-Butanone (MEK)	100	94		1	94	2.1	57-148	20	06/01/2014 1204
Carbon disulfide	50	39		1	78	1.9	58-122	20	06/01/2014 1204
Carbon tetrachloride	50	40		1	80	3.1	58-136	20	06/01/2014 1204
Chlorobenzene	50	39		1	78	2.1	59-129	20	06/01/2014 1204
Chloroethane	50	42		1	85	2.5	42-163	20	06/01/2014 1204
Chloroform	50	40		1	79	3.9	71-125	20	06/01/2014 1204
Chloromethane (Methyl chloride)	50	41		1	82	3.1	34-134	20	06/01/2014 1204
Cyclohexane	50	42		1	83	0.11	53-139	20	06/01/2014 1204
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	82	3.3	55-125	20	06/01/2014 1204
Dibromochloromethane	50	38		1	77	2.6	66-119	20	06/01/2014 1204
1,2-Dibromoethane (EDB)	50	40		1	79	4.1	74-124	20	06/01/2014 1204
1,3-Dichlorobenzene	50	40		1	80	2.1	51-134	20	06/01/2014 1204
1,2-Dichlorobenzene	50	40		1	81	0.16	57-131	20	06/01/2014 1204
1,4-Dichlorobenzene	50	39		1	79	0.50	52-133	20	06/01/2014 1204
Dichlorodifluoromethane	50	43		1	86	3.3	10-157	20	06/01/2014 1204
1,1-Dichloroethane	50	41		1	83	0.41	71-127	20	06/01/2014 1204
1,2-Dichloroethane	50	40		1	81	2.6	67-129	20	06/01/2014 1204
1,1-Dichloroethene	50	41		1	81	2.7	69-138	20	06/01/2014 1204
cis-1,2-Dichloroethene	50	41		1	82	1.4	70-122	20	06/01/2014 1204
trans-1,2-Dichloroethene	50	41		1	81	4.1	68-131	20	06/01/2014 1204
1,2-Dichloropropane	50	40		1	80	2.3	72-124	20	06/01/2014 1204
cis-1,3-Dichloropropene	50	40		1	80	2.5	70-126	20	06/01/2014 1204
trans-1,3-Dichloropropene	50	40		1	80	4.4	70-124	20	06/01/2014 1204
Ethylbenzene	50	39		1	78	0.90	59-128	20	06/01/2014 1204
2-Hexanone	100	86		1	86	6.3	54-137	20	06/01/2014 1204
Isopropylbenzene	50	41		1	82	0.16	50-136	20	06/01/2014 1204
Methyl acetate	50	46		1	92	3.0	59-137	20	06/01/2014 1204
Methyl tertiary butyl ether (MTBE)	50	43		1	86	0.13	70-130	20	06/01/2014 1204
4-Methyl-2-pentanone	100	87		1	87	5.3	60-134	20	06/01/2014 1204
Methylcyclohexane	50	41		1	81	1.1	41-144	20	06/01/2014 1204
Methylene chloride	50	42		1	83	2.2	70-130	20	06/01/2014 1204
Styrene	50	40		1	79	3.0	54-136	20	06/01/2014 1204
1,1,2,2-Tetrachloroethane	50	42		1	84	2.6	69-132	20	06/01/2014 1204
Tetrachloroethene	50	38		1	75	2.5	45-150	20	06/01/2014 1204
Toluene	50	39		1	78	0.27	61-129	20	06/01/2014 1204
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	3.9	49-136	20	06/01/2014 1204
1,2,4-Trichlorobenzene	50	41		1	83	4.7	34-145	20	06/01/2014 1204
1,1,2-Trichloroethane	50	38		1	77	4.0	55-128	20	06/01/2014 1204
1,1,1-Trichloroethane	50	41		1	83	4.3	63-128	20	06/01/2014 1204

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47960-003

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	39		1	78	1.3	62-126	20	06/01/2014 1204
Trichlorofluoromethane	50	42		1	85	3.9	45-138	20	06/01/2014 1204
Vinyl chloride	50	42		1	84	3.8	42-132	20	06/01/2014 1204
Xylenes (total)	100	80		1	80	1.7	58-128	20	06/01/2014 1204
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		85	47-138						
1,2-Dichloroethane-d4		87	53-142						
Toluene-d8		91	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE29055-001DU

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	27	25		1	6.7	20	06/01/2014 2024
Benzene	ND	ND		1	0.00	20	06/01/2014 2024
Bromodichloromethane	ND	ND		1	0.00	20	06/01/2014 2024
Bromoform	ND	ND		1	0.00	20	06/01/2014 2024
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	06/01/2014 2024
2-Butanone (MEK)	ND	ND		1	0.00	20	06/01/2014 2024
Carbon disulfide	ND	ND		1	0.00	20	06/01/2014 2024
Carbon tetrachloride	ND	ND		1	0.00	20	06/01/2014 2024
Chlorobenzene	ND	ND		1	0.00	20	06/01/2014 2024
Chloroethane	ND	ND		1	0.00	20	06/01/2014 2024
Chloroform	ND	ND		1	0.00	20	06/01/2014 2024
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	06/01/2014 2024
Cyclohexane	ND	ND		1	0.00	20	06/01/2014 2024
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	06/01/2014 2024
Dibromochloromethane	ND	ND		1	0.00	20	06/01/2014 2024
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	06/01/2014 2024
1,2-Dichlorobenzene	ND	ND		1	0.00	20	06/01/2014 2024
1,3-Dichlorobenzene	ND	ND		1	0.00	20	06/01/2014 2024
1,4-Dichlorobenzene	ND	ND		1	0.00	20	06/01/2014 2024
Dichlorodifluoromethane	ND	ND		1	0.00	20	06/01/2014 2024
1,1-Dichloroethane	ND	ND		1	0.00	20	06/01/2014 2024
1,2-Dichloroethane	ND	ND		1	0.00	20	06/01/2014 2024
1,1-Dichloroethene	ND	ND		1	0.00	20	06/01/2014 2024
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	06/01/2014 2024
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	06/01/2014 2024
1,2-Dichloropropane	ND	ND		1	0.00	20	06/01/2014 2024
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	06/01/2014 2024
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	06/01/2014 2024
Ethylbenzene	ND	ND		1	0.00	20	06/01/2014 2024
2-Hexanone	ND	ND		1	0.00	20	06/01/2014 2024
Isopropylbenzene	ND	ND		1	0.00	20	06/01/2014 2024
Methyl acetate	ND	ND		1	0.00	20	06/01/2014 2024
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	06/01/2014 2024
4-Methyl-2-pentanone	ND	ND		1	0.00	20	06/01/2014 2024
Methylcyclohexane	ND	ND		1	0.00	20	06/01/2014 2024
Methylene chloride	ND	ND		1	0.00	20	06/01/2014 2024
Styrene	ND	ND		1	0.00	20	06/01/2014 2024
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	06/01/2014 2024
Tetrachloroethene	ND	ND		1	0.00	20	06/01/2014 2024
Toluene	ND	ND		1	0.00	20	06/01/2014 2024
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	06/01/2014 2024
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	06/01/2014 2024
1,1,1-Trichloroethane	ND	ND		1	0.00	20	06/01/2014 2024
1,1,2-Trichloroethane	ND	ND		1	0.00	20	06/01/2014 2024

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PE29055-001DU

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	06/01/2014 2024
Trichlorofluoromethane	ND	ND		1	0.00	20	06/01/2014 2024
Vinyl chloride	ND	ND		1	0.00	20	06/01/2014 2024
Xylenes (total)	ND	ND		1	0.00	20	06/01/2014 2024
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		92	53-142				
Bromofluorobenzene		91	47-138				
Toluene-d8		91	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE29055-002MS

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	23	120	120		1	79	60-140	06/01/2014 2048
Benzene	ND	61	52		1	87	69-123	06/01/2014 2048
Bromodichloromethane	ND	61	52		1	86	69-121	06/01/2014 2048
Bromoform	ND	61	50		1	82	61-119	06/01/2014 2048
Bromomethane (Methyl bromide)	ND	61	53		1	88	35-144	06/01/2014 2048
2-Butanone (MEK)	ND	120	97		1	80	57-148	06/01/2014 2048
Carbon disulfide	ND	61	49		1	81	58-122	06/01/2014 2048
Carbon tetrachloride	ND	61	52		1	86	58-136	06/01/2014 2048
Chlorobenzene	ND	61	50		1	82	59-129	06/01/2014 2048
Chloroethane	ND	61	55		1	91	50-132	06/01/2014 2048
Chloroform	ND	61	53		1	87	71-125	06/01/2014 2048
Chloromethane (Methyl chloride)	ND	61	52		1	86	34-134	06/01/2014 2048
Cyclohexane	ND	61	51		1	84	53-139	06/01/2014 2048
1,2-Dibromo-3-chloropropane (DBCP)	ND	61	48		1	80	55-125	06/01/2014 2048
Dibromochloromethane	ND	61	51		1	83	66-119	06/01/2014 2048
1,2-Dibromoethane (EDB)	ND	61	49		1	81	74-124	06/01/2014 2048
1,2-Dichlorobenzene	ND	61	50		1	82	57-131	06/01/2014 2048
1,3-Dichlorobenzene	ND	61	48		1	80	51-134	06/01/2014 2048
1,4-Dichlorobenzene	ND	61	48		1	78	52-133	06/01/2014 2048
Dichlorodifluoromethane	ND	61	58		1	96	10-157	06/01/2014 2048
1,1-Dichloroethane	ND	61	52		1	86	71-127	06/01/2014 2048
1,2-Dichloroethane	ND	61	50		1	83	67-129	06/01/2014 2048
1,1-Dichloroethene	ND	61	53		1	87	69-138	06/01/2014 2048
cis-1,2-Dichloroethene	ND	61	52		1	86	70-122	06/01/2014 2048
trans-1,2-Dichloroethene	ND	61	52		1	86	68-131	06/01/2014 2048
1,2-Dichloropropane	ND	61	52		1	85	72-124	06/01/2014 2048
cis-1,3-Dichloropropene	ND	61	51		1	84	70-126	06/01/2014 2048
trans-1,3-Dichloropropene	ND	61	52		1	86	70-124	06/01/2014 2048
Ethylbenzene	ND	61	50		1	82	59-128	06/01/2014 2048
2-Hexanone	ND	120	93		1	76	54-137	06/01/2014 2048
Isopropylbenzene	ND	61	52		1	86	50-136	06/01/2014 2048
Methyl acetate	ND	61	51		1	85	59-137	06/01/2014 2048
Methyl tertiary butyl ether (MTBE)	ND	61	59		1	97	70-130	06/01/2014 2048
4-Methyl-2-pentanone	ND	120	100		1	82	60-134	06/01/2014 2048
Methylcyclohexane	ND	61	51		1	84	41-144	06/01/2014 2048
Methylene chloride	ND	61	52		1	86	77-129	06/01/2014 2048
Styrene	ND	61	51		1	84	54-136	06/01/2014 2048
1,1,2,2-Tetrachloroethane	ND	61	52		1	85	69-132	06/01/2014 2048
Tetrachloroethene	ND	61	50		1	83	70-130	06/01/2014 2048
Toluene	ND	61	50		1	82	61-129	06/01/2014 2048
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	61	59		1	97	49-136	06/01/2014 2048
1,2,4-Trichlorobenzene	ND	61	47		1	77	34-145	06/01/2014 2048
1,1,1-Trichloroethane	ND	61	54		1	89	63-128	06/01/2014 2048
1,1,2-Trichloroethane	ND	61	49		1	80	55-128	06/01/2014 2048

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PE29055-002MS

Matrix: Solid

Batch: 47960

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	61	51		1	83	62-126	06/01/2014 2048
Trichlorofluoromethane	ND	61	55		1	90	45-138	06/01/2014 2048
Vinyl chloride	ND	61	55		1	90	42-132	06/01/2014 2048
Xylenes (total)	ND	120	100		1	85	58-128	06/01/2014 2048
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		89	53-142					
Bromofluorobenzene		88	47-138					
Toluene-d8		94	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AE Com Cooler Inspected by/date: ECC 5/29/14 Lot #: PE29055

Means of receipt: <input type="checkbox"/> SEST <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>15.9 / 6.0 °C</u> / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	18. Were bubbles present > "pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>[Signature]</u> Date: <u>5/29/14</u>		

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number **18492**

Client AFCOM	Report to Contact Scott Cross	Sampler (Printed Name) Scott Cross / Justin Butler	Quote No.
Address 3825 Faber Drive, St. 300		Waybill No.	
Telephone No. / Fax No. / Email (803) 201-9662		Page 2 of 2	
City Charleston, SC 29405		PE29054 PE29055	
Project Name Shakespeare - Newberry			
Project Number 60318382.5		Number of Probes	
Sample ID / Description (Containers for each sample may be combined on one line)		Date	
B-37-12		5/29/14 1450	
785050			
TB52914			
Preservative		Matrix	
1. Unpres. 4. HNO3 7. NaOH		G	
2. NaOH/ZnA 5. HCl		G	
3. H2SO4 6. Na Thio.		G	
Sample Disposal		Possible Hazard Identification	
<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown	
1. Relinquished by / Sampler		1. Received by	
Date: 5/29/14 1731		Date: _____	
2. Relinquished by		2. Received by	
Date: _____		Date: _____	
3. Relinquished by		3. Received by	
Date: _____		Date: 5/29/14 1751	
4. Relinquished by		4. Laboratory Received by	
Date: _____		Date: _____	
Note: All samples are retained for six weeks from receipt unless other arrangements are made.		LAB USE ONLY Received on Ice (Check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Receipt Temp. 6.0 °C Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N	

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PE30022**

Date Completed: **06/02/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PE30022 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PE30022

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PE30022

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-26	Aqueous	05/30/2014 0940	05/30/2014
002	TMW-27	Aqueous	05/30/2014 1105	05/30/2014
003	TMW-28	Aqueous	05/30/2014 1255	05/30/2014
004	TB53014	Aqueous	05/30/2014 0940	05/30/2014

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PE30022

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-26	Aqueous	Benzene	8260B	0.28	J	ug/L	5
001	TMW-26	Aqueous	1,1-Dichloroethane	8260B	0.52	J	ug/L	5
001	TMW-26	Aqueous	1,2-Dichloroethane	8260B	1.0	J	ug/L	5
001	TMW-26	Aqueous	1,1-Dichloroethene	8260B	1.1	J	ug/L	5
001	TMW-26	Aqueous	cis-1,2-Dichloroethene	8260B	34		ug/L	5
001	TMW-26	Aqueous	Styrene	8260B	0.26	J	ug/L	5
001	TMW-26	Aqueous	Trichloroethene	8260B	120		ug/L	6
001	TMW-26	Aqueous	Vinyl chloride	8260B	1.7	J	ug/L	6
002	TMW-27	Aqueous	Benzene	8260B	0.52	J	ug/L	7
002	TMW-27	Aqueous	1,1-Dichloroethane	8260B	1.8	J	ug/L	7
002	TMW-27	Aqueous	1,1-Dichloroethene	8260B	2.5	J	ug/L	7
002	TMW-27	Aqueous	cis-1,2-Dichloroethene	8260B	120		ug/L	7
002	TMW-27	Aqueous	trans-1,2-Dichloroethene	8260B	1.3	J	ug/L	7
002	TMW-27	Aqueous	Isopropylbenzene	8260B	1.2	J	ug/L	7
002	TMW-27	Aqueous	Styrene	8260B	0.46	J	ug/L	7
002	TMW-27	Aqueous	Trichloroethene	8260B	34		ug/L	8
002	TMW-27	Aqueous	Vinyl chloride	8260B	9.5		ug/L	8
003	TMW-28	Aqueous	1,2-Dichloroethane	8260B	0.71	J	ug/L	9
003	TMW-28	Aqueous	cis-1,2-Dichloroethene	8260B	0.60	J	ug/L	9
003	TMW-28	Aqueous	Styrene	8260B	0.38	J	ug/L	9
003	TMW-28	Aqueous	Tetrachloroethene	8260B	0.92	J	ug/L	9
003	TMW-28	Aqueous	Trichloroethene	8260B	150		ug/L	10

(22 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-001
Description: TMW-26	Matrix: Aqueous
Date Sampled: 05/30/2014 0940	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1546	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.28	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.52	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	1.0	J	5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	1.1	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	34		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.26	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-001
Description: TMW-26	Matrix: Aqueous
Date Sampled: 05/30/2014 0940	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1546	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	120		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	1.7	J	2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-002
Description: TMW-27	Matrix: Aqueous
Date Sampled: 05/30/2014 1105	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1609	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.52	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	1.8	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	2.5	J	5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	120		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	1.3	J	5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	1.2	J	5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.46	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-002
Description: TMW-27	Matrix: Aqueous
Date Sampled: 05/30/2014 1105	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1609	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	34		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	9.5		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-003
Description: TMW-28	Matrix: Aqueous
Date Sampled: 05/30/2014 1255	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1631	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	0.71	J	5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.60	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.38	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.92	J	5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-003
Description: TMW-28	Matrix: Aqueous
Date Sampled: 05/30/2014 1255	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1631	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	150		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PE30022-004**

 Description: **TB53014**

 Matrix: **Aqueous**

 Date Sampled: **05/30/2014 0940**

 Date Received: **05/30/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1244	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PE30022-004
Description: TB53014	Matrix: Aqueous
Date Sampled: 05/30/2014 0940	
Date Received: 05/30/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/01/2014 1244	PMM2		47965

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47965-001

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/01/2014 1222
Benzene	ND		1	5.0	0.20	ug/L	06/01/2014 1222
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Bromoform	ND		1	5.0	0.40	ug/L	06/01/2014 1222
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/01/2014 1222
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/01/2014 1222
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/01/2014 1222
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/01/2014 1222
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Chloroethane	ND		1	5.0	0.50	ug/L	06/01/2014 1222
Chloroform	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/01/2014 1222
Cyclohexane	ND		1	5.0	0.98	ug/L	06/01/2014 1222
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/01/2014 1222
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/01/2014 1222
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/01/2014 1222
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/01/2014 1222
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/01/2014 1222
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/01/2014 1222
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/01/2014 1222
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/01/2014 1222
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/01/2014 1222
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
2-Hexanone	ND		1	10	1.0	ug/L	06/01/2014 1222
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/01/2014 1222
Methyl acetate	ND		1	5.0	0.72	ug/L	06/01/2014 1222
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/01/2014 1222
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/01/2014 1222
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/01/2014 1222
Methylene chloride	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Styrene	ND		1	5.0	0.10	ug/L	06/01/2014 1222
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/01/2014 1222
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/01/2014 1222
Toluene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/01/2014 1222
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/01/2014 1222

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ47965-001

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/01/2014 1222
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/01/2014 1222
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/01/2014 1222
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/01/2014 1222
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		96	70-130				
1,2-Dichloroethane-d4		96	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47965-002

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	06/01/2014 1051
Benzene	50	51		1	103	70-130	06/01/2014 1051
Bromodichloromethane	50	51		1	102	70-130	06/01/2014 1051
Bromoform	50	51		1	102	70-130	06/01/2014 1051
Bromomethane (Methyl bromide)	50	41		1	81	60-140	06/01/2014 1051
2-Butanone (MEK)	100	110		1	106	60-140	06/01/2014 1051
Carbon disulfide	50	50		1	100	60-140	06/01/2014 1051
Carbon tetrachloride	50	51		1	102	70-130	06/01/2014 1051
Chlorobenzene	50	50		1	100	70-130	06/01/2014 1051
Chloroethane	50	46		1	93	42-163	06/01/2014 1051
Chloroform	50	50		1	100	70-130	06/01/2014 1051
Chloromethane (Methyl chloride)	50	50		1	101	60-140	06/01/2014 1051
Cyclohexane	50	51		1	102	70-130	06/01/2014 1051
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	70-130	06/01/2014 1051
Dibromochloromethane	50	51		1	102	70-130	06/01/2014 1051
1,2-Dibromoethane (EDB)	50	51		1	101	70-130	06/01/2014 1051
1,4-Dichlorobenzene	50	51		1	102	70-130	06/01/2014 1051
1,3-Dichlorobenzene	50	52		1	103	70-130	06/01/2014 1051
1,2-Dichlorobenzene	50	50		1	100	70-130	06/01/2014 1051
Dichlorodifluoromethane	50	53		1	107	60-140	06/01/2014 1051
1,2-Dichloroethane	50	50		1	101	70-130	06/01/2014 1051
1,1-Dichloroethane	50	51		1	101	70-130	06/01/2014 1051
1,1-Dichloroethene	50	52		1	103	70-130	06/01/2014 1051
cis-1,2-Dichloroethene	50	51		1	102	70-130	06/01/2014 1051
trans-1,2-Dichloroethene	50	52		1	105	70-130	06/01/2014 1051
1,2-Dichloropropane	50	52		1	103	70-130	06/01/2014 1051
trans-1,3-Dichloropropene	50	53		1	106	70-130	06/01/2014 1051
cis-1,3-Dichloropropene	50	54		1	108	70-130	06/01/2014 1051
Ethylbenzene	50	51		1	102	70-130	06/01/2014 1051
2-Hexanone	100	100		1	103	60-140	06/01/2014 1051
Isopropylbenzene	50	54		1	108	70-130	06/01/2014 1051
Methyl acetate	50	53		1	106	70-130	06/01/2014 1051
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	06/01/2014 1051
4-Methyl-2-pentanone	100	100		1	101	60-140	06/01/2014 1051
Methylcyclohexane	50	52		1	105	70-130	06/01/2014 1051
Methylene chloride	50	47		1	94	70-130	06/01/2014 1051
Styrene	50	51		1	101	70-130	06/01/2014 1051
1,1,2,2-Tetrachloroethane	50	53		1	107	70-130	06/01/2014 1051
Tetrachloroethene	50	48		1	97	70-130	06/01/2014 1051
Toluene	50	53		1	105	70-130	06/01/2014 1051
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	60		1	121	70-130	06/01/2014 1051
1,2,4-Trichlorobenzene	50	51		1	103	70-130	06/01/2014 1051
1,1,2-Trichloroethane	50	50		1	100	70-130	06/01/2014 1051
1,1,1-Trichloroethane	50	49		1	99	70-130	06/01/2014 1051

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ47965-002

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	101	70-130	06/01/2014 1051
Trichlorofluoromethane	50	56		1	112	70-130	06/01/2014 1051
Vinyl chloride	50	50		1	100	70-130	06/01/2014 1051
Xylenes (total)	100	100		1	101	70-130	06/01/2014 1051
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		94			70-130		
1,2-Dichloroethane-d4		94			70-130		
Toluene-d8		102			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47965-003

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	104	5.4	60-140	20	06/01/2014 1113
Benzene	50	50		1	100	2.7	70-130	20	06/01/2014 1113
Bromodichloromethane	50	50		1	100	2.2	70-130	20	06/01/2014 1113
Bromoform	50	52		1	105	2.8	70-130	20	06/01/2014 1113
Bromomethane (Methyl bromide)	50	42		1	83	2.4	60-140	20	06/01/2014 1113
2-Butanone (MEK)	100	110		1	113	6.1	60-140	20	06/01/2014 1113
Carbon disulfide	50	48		1	95	5.0	60-140	20	06/01/2014 1113
Carbon tetrachloride	50	51		1	101	0.21	70-130	20	06/01/2014 1113
Chlorobenzene	50	50		1	100	0.034	70-130	20	06/01/2014 1113
Chloroethane	50	47		1	94	1.3	42-163	20	06/01/2014 1113
Chloroform	50	49		1	99	0.83	70-130	20	06/01/2014 1113
Chloromethane (Methyl chloride)	50	49		1	97	3.6	60-140	20	06/01/2014 1113
Cyclohexane	50	48		1	96	5.9	70-130	20	06/01/2014 1113
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	5.7	70-130	20	06/01/2014 1113
Dibromochloromethane	50	51		1	102	0.48	70-130	20	06/01/2014 1113
1,2-Dibromoethane (EDB)	50	52		1	105	3.4	70-130	20	06/01/2014 1113
1,4-Dichlorobenzene	50	50		1	101	1.7	70-130	20	06/01/2014 1113
1,3-Dichlorobenzene	50	51		1	102	1.6	70-130	20	06/01/2014 1113
1,2-Dichlorobenzene	50	50		1	100	0.41	70-130	20	06/01/2014 1113
Dichlorodifluoromethane	50	52		1	105	1.7	60-140	20	06/01/2014 1113
1,2-Dichloroethane	50	50		1	99	1.4	70-130	20	06/01/2014 1113
1,1-Dichloroethane	50	49		1	99	2.3	70-130	20	06/01/2014 1113
1,1-Dichloroethene	50	51		1	101	2.1	70-130	20	06/01/2014 1113
cis-1,2-Dichloroethene	50	51		1	102	0.13	70-130	20	06/01/2014 1113
trans-1,2-Dichloroethene	50	51		1	102	2.5	70-130	20	06/01/2014 1113
1,2-Dichloropropane	50	51		1	102	1.4	70-130	20	06/01/2014 1113
trans-1,3-Dichloropropene	50	54		1	108	1.8	70-130	20	06/01/2014 1113
cis-1,3-Dichloropropene	50	53		1	106	2.1	70-130	20	06/01/2014 1113
Ethylbenzene	50	51		1	102	0.38	70-130	20	06/01/2014 1113
2-Hexanone	100	110		1	108	5.0	60-140	20	06/01/2014 1113
Isopropylbenzene	50	53		1	106	1.6	70-130	20	06/01/2014 1113
Methyl acetate	50	51		1	102	4.0	70-130	20	06/01/2014 1113
Methyl tertiary butyl ether (MTBE)	50	51		1	102	0.37	70-130	20	06/01/2014 1113
4-Methyl-2-pentanone	100	100		1	103	1.9	60-140	20	06/01/2014 1113
Methylcyclohexane	50	51		1	102	2.3	70-130	20	06/01/2014 1113
Methylene chloride	50	46		1	92	2.5	70-130	20	06/01/2014 1113
Styrene	50	51		1	102	0.97	70-130	20	06/01/2014 1113
1,1,2,2-Tetrachloroethane	50	54		1	107	0.81	70-130	20	06/01/2014 1113
Tetrachloroethene	50	48		1	97	0.18	70-130	20	06/01/2014 1113
Toluene	50	52		1	104	1.4	70-130	20	06/01/2014 1113
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	60		1	119	1.4	70-130	20	06/01/2014 1113
1,2,4-Trichlorobenzene	50	52		1	104	1.1	70-130	20	06/01/2014 1113
1,1,2-Trichloroethane	50	51		1	103	2.8	70-130	20	06/01/2014 1113
1,1,1-Trichloroethane	50	49		1	97	1.2	70-130	20	06/01/2014 1113

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ47965-003

Matrix: Aqueous

Batch: 47965

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	49		1	98	3.3	70-130	20	06/01/2014 1113
Trichlorofluoromethane	50	54		1	109	2.9	70-130	20	06/01/2014 1113
Vinyl chloride	50	49		1	97	2.6	70-130	20	06/01/2014 1113
Xylenes (total)	100	100		1	102	0.40	70-130	20	06/01/2014 1113
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		97	70-130						
1,2-Dichloroethane-d4		94	70-130						
Toluene-d8		102	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number 18491

Client 4ECON	Report to Contact <i>Scott Ross</i>	Sampler (Printed Name) <i>Scott Ross</i>	Quote No.	Page 1 of 1	Number of Containers B
Address 3100 Faber Place, 31300		Waybill No.		Barcode PE30022	
City Charleston		State SC		Zip Code 29405	
Project Name Shakespeare - Non-Spore		Project Number 60317382.5		Remarks / Cooler ID	
Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Tho.		Matrix Composite GW DM WW S Other		Analysis	
Sample ID / Description (Contents for each sample may be combined on one line)	Date	Time			
TMW-26	5/30/14	0940	<input checked="" type="checkbox"/>		
TMW-27	"	1105	<input checked="" type="checkbox"/>		
TMW-28	"	1255	<input checked="" type="checkbox"/>		
TBS3014			<input checked="" type="checkbox"/>		
Turn Around Time Required (Prior lab approval required for expedited TAT) <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) (24-48)			Possible Hazard Identification <input type="checkbox"/> No-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown		
1. Relinquished by / Sampler <i>[Signature]</i>	Date 5/30/14	Time 1520	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by <i>[Signature]</i>	Date 5/30/14	Time 1520
Note: All samples are retained for six weeks from receipt unless other arrangements are made.			LAB USE ONLY Received on Ice (Check) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ice Pack Receipt Temp. G.D. °C Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N		

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: ECC, 5/30/14 Lot #: PE30022

Means of receipt: <input type="checkbox"/> SBSI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>15.9/6.0</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>70.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present > "pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H2SO4, HNO3, HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>[Signature]</u> Date: <u>5/30/14</u>		

Comments:

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF03066**

Date Completed: **06/05/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF03066 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF03066

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF03066

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-29-6	Solid	06/03/2014 1020	06/03/2014
002	TMW-29-9	Solid	06/03/2014 1025	06/03/2014
003	B-38-4	Solid	06/03/2014 1332	06/03/2014
004	B-38-8	Solid	06/03/2014 1339	06/03/2014
005	B-38-12	Solid	06/03/2014 1345	06/03/2014
006	B-39-4	Solid	06/03/2014 1540	06/03/2014
007	B-39-6	Solid	06/03/2014 1545	06/03/2014
008	B-39-8	Solid	06/03/2014 1555	06/03/2014
009	TB060314	Aqueous	06/03/2014	06/03/2014

(9 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF03066

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-29-6	Solid	Acetone	8260B	47		ug/kg	5
001	TMW-29-6	Solid	Styrene	8260B	3.0	J	ug/kg	5
002	TMW-29-9	Solid	Styrene	8260B	1.4	J	ug/kg	7
003	B-38-4	Solid	Acetone	8260B	33		ug/kg	9
003	B-38-4	Solid	cis-1,2-Dichloroethene	8260B	48		ug/kg	9
003	B-38-4	Solid	Tetrachloroethene	8260B	0.62	J	ug/kg	9
003	B-38-4	Solid	Trichloroethene	8260B	110		ug/kg	10
004	B-38-8	Solid	Chloroform	8260B	1.3	J	ug/kg	11
004	B-38-8	Solid	cis-1,2-Dichloroethene	8260B	8.6		ug/kg	11
004	B-38-8	Solid	Trichloroethene	8260B	21		ug/kg	12
005	B-38-12	Solid	Chloroform	8260B	5.4	J	ug/kg	13
005	B-38-12	Solid	cis-1,2-Dichloroethene	8260B	58		ug/kg	13
005	B-38-12	Solid	Tetrachloroethene	8260B	0.88	J	ug/kg	13
005	B-38-12	Solid	Trichloroethene	8260B	130		ug/kg	14
006	B-39-4	Solid	Acetone	8260B	16	J	ug/kg	15
006	B-39-4	Solid	Styrene	8260B	3.7	J	ug/kg	15
007	B-39-6	Solid	Acetone	8260B	11	J	ug/kg	17
007	B-39-6	Solid	Styrene	8260B	3.0	J	ug/kg	17
008	B-39-8	Solid	Styrene	8260B	1.3	J	ug/kg	19

(19 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-001
Description: TMW-29-6	Matrix: Solid
Date Sampled: 06/03/2014 1020	% Solids: 81.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1620	DCS		48218	5.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	47		21	7.0	ug/kg	1
Benzene	71-43-2	8260B	ND		5.2	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.2	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.2	0.73	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.2	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.2	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.2	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.2	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.2	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.2	0.87	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.2	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.2	0.70	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.2	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.2	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.2	0.89	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.2	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.2	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.2	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.2	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.2	0.76	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.2	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.2	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.2	0.79	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.2	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.2	0.95	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.2	0.71	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.2	0.86	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.2	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.2	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.2	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.2	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.2	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.2	2.7	ug/kg	1
Styrene	100-42-5	8260B	3.0	J	5.2	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.2	0.49	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.2	0.52	ug/kg	1
Toluene	108-88-3	8260B	ND		5.2	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.2	0.66	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.2	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.2	0.89	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.2	0.82	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-001
Description: TMW-29-6	Matrix: Solid
Date Sampled: 06/03/2014 1020	% Solids: 81.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1620	DCS		48218	5.90

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.2	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.2	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.2	0.90	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.2	3.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	53-142
Bromofluorobenzene		97	47-138
Toluene-d8		109	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-002
Description: TMW-29-9	Matrix: Solid
Date Sampled: 06/03/2014 1025	% Solids: 83.7 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1644	DCS		48218	5.65

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		21	7.1	ug/kg	1
Benzene	71-43-2	8260B	ND		5.3	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.3	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.3	0.74	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.3	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.3	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.3	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.3	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.3	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.3	0.88	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.3	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.3	0.71	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.3	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.3	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.3	0.90	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.3	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.3	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.3	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.3	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.3	0.77	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.3	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.3	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.3	0.80	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.3	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.3	0.96	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.3	0.72	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.3	0.87	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.3	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.3	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.3	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.3	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.3	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.3	2.7	ug/kg	1
Styrene	100-42-5	8260B	1.4	J	5.3	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.3	0.50	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.3	0.53	ug/kg	1
Toluene	108-88-3	8260B	ND		5.3	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.3	0.67	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.3	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.3	0.90	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.3	0.83	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-002
Description: TMW-29-9	Matrix: Solid
Date Sampled: 06/03/2014 1025	% Solids: 83.7 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1644	DCS		48218	5.65

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.3	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.3	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.3	0.91	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.3	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		97	47-138
Toluene-d8		110	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-003
Description: B-38-4	Matrix: Solid
Date Sampled: 06/03/2014 1332	% Solids: 80.3 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1707	DCS		48218	5.72

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	33		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.93	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	48		5.4	0.83	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	0.62	J	5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.69	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.93	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-003
Description: B-38-4	Matrix: Solid
Date Sampled: 06/03/2014 1332	% Solids: 80.3 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1707	DCS		48218	5.72

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	110		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.94	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	53-142
Bromofluorobenzene		98	47-138
Toluene-d8		109	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-004
Description: B-38-8	Matrix: Solid
Date Sampled: 06/03/2014 1339	% Solids: 80.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1730	DCS		48218	5.45

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.7	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.80	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	1.3	J	5.7	0.95	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.77	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.97	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	8.6		5.7	0.87	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.78	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.94	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.46	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.47	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.54	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.72	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.97	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.90	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-004
Description: B-38-8	Matrix: Solid
Date Sampled: 06/03/2014 1339	% Solids: 80.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1730	DCS		48218	5.45

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	21		5.7	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.98	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	53-142
Bromofluorobenzene		97	47-138
Toluene-d8		108	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-005
Description: B-38-12	Matrix: Solid
Date Sampled: 06/03/2014 1345	% Solids: 77.5 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1753	DCS		48218	5.67

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.80	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	5.4	J	5.7	0.94	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.77	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.97	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	58		5.7	0.86	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.77	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.93	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.46	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.47	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	0.88	J	5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.72	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.97	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.90	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-005
Description: B-38-12	Matrix: Solid
Date Sampled: 06/03/2014 1345	% Solids: 77.5 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1753	DCS		48218	5.67

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	130		5.7	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.98	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	53-142
Bromofluorobenzene		101	47-138
Toluene-d8		111	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-006
Description: B-39-4	Matrix: Solid
Date Sampled: 06/03/2014 1540	% Solids: 86.4 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1816	DCS		48218	5.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	16	J	22	7.4	ug/kg	1
Benzene	71-43-2	8260B	ND		5.5	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.5	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.5	0.78	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.5	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.5	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.5	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.5	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.5	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.5	0.92	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.5	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.5	0.75	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.5	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.5	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.5	0.94	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.5	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.5	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.5	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.5	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.5	0.81	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.5	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.5	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.5	0.84	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.5	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.5	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.5	0.75	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.5	0.91	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.5	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.5	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.5	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.5	0.44	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.5	0.45	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.5	2.9	ug/kg	1
Styrene	100-42-5	8260B	3.7	J	5.5	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.5	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.5	0.55	ug/kg	1
Toluene	108-88-3	8260B	ND		5.5	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.5	0.70	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.5	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.5	0.94	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.5	0.88	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-006
Description: B-39-4	Matrix: Solid
Date Sampled: 06/03/2014 1540	% Solids: 86.4 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1816	DCS		48218	5.22

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.5	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.5	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.5	0.95	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.5	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	53-142
Bromofluorobenzene		96	47-138
Toluene-d8		110	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-007
Description: B-39-6	Matrix: Solid
Date Sampled: 06/03/2014 1545	% Solids: 85.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1839	DCS		48218	5.79

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	20	6.8	ug/kg	1
Benzene	71-43-2	8260B	ND		5.1	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.1	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.1	0.71	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.1	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.1	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.1	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.1	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.1	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.1	0.84	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.1	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.1	0.68	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.1	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.1	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.1	0.86	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.1	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.1	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.1	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.1	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.1	0.74	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.1	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.1	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.1	0.77	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.1	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.1	0.92	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.1	0.69	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.1	0.83	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.1	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.1	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.1	0.99	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.1	0.41	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.1	0.42	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.1	2.6	ug/kg	1
Styrene	100-42-5	8260B	3.0	J	5.1	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.1	0.48	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.1	0.51	ug/kg	1
Toluene	108-88-3	8260B	ND		5.1	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.1	0.64	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.1	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.1	0.86	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.1	0.80	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-007
Description: B-39-6	Matrix: Solid
Date Sampled: 06/03/2014 1545	% Solids: 85.2 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1839	DCS		48218	5.79

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.1	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.1	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.1	0.87	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.1	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		97	47-138
Toluene-d8		108	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-008
Description: B-39-8	Matrix: Solid
Date Sampled: 06/03/2014 1555	% Solids: 82.7 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1902	DCS		48218	5.59

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.98	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	1.3	J	5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.85	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-008
Description: B-39-8	Matrix: Solid
Date Sampled: 06/03/2014 1555	% Solids: 82.7 06/03/2014 1936
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/04/2014 1902	DCS		48218	5.59

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	53-142
Bromofluorobenzene		94	47-138
Toluene-d8		107	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-009
Description: TB060314	Matrix: Aqueous
Date Sampled: 06/03/2014	
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2014 1100	ALL		48192

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF03066-009
Description: TB060314	Matrix: Aqueous
Date Sampled: 06/03/2014	
Date Received: 06/03/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2014 1100	ALL		48192

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48192-001

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/04/2014 1038
Benzene	ND		1	5.0	0.20	ug/L	06/04/2014 1038
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Bromoform	ND		1	5.0	0.40	ug/L	06/04/2014 1038
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/04/2014 1038
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/04/2014 1038
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/04/2014 1038
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/04/2014 1038
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Chloroethane	ND		1	5.0	0.50	ug/L	06/04/2014 1038
Chloroform	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/04/2014 1038
Cyclohexane	ND		1	5.0	0.98	ug/L	06/04/2014 1038
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/04/2014 1038
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/04/2014 1038
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/04/2014 1038
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/04/2014 1038
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/04/2014 1038
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/04/2014 1038
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/04/2014 1038
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/04/2014 1038
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/04/2014 1038
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
2-Hexanone	ND		1	10	1.0	ug/L	06/04/2014 1038
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/04/2014 1038
Methyl acetate	ND		1	5.0	0.72	ug/L	06/04/2014 1038
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/04/2014 1038
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/04/2014 1038
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/04/2014 1038
Methylene chloride	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Styrene	ND		1	5.0	0.10	ug/L	06/04/2014 1038
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/04/2014 1038
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/04/2014 1038
Toluene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/04/2014 1038
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/04/2014 1038

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48192-001

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/04/2014 1038
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/04/2014 1038
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/04/2014 1038
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/04/2014 1038
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichloroethane-d4		92	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48192-002

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	92		1	92	60-140	06/04/2014 0908
Benzene	50	51		1	102	70-130	06/04/2014 0908
Bromodichloromethane	50	49		1	99	70-130	06/04/2014 0908
Bromoform	50	49		1	98	70-130	06/04/2014 0908
Bromomethane (Methyl bromide)	50	46		1	92	60-140	06/04/2014 0908
2-Butanone (MEK)	100	100		1	103	60-140	06/04/2014 0908
Carbon disulfide	50	47		1	95	60-140	06/04/2014 0908
Carbon tetrachloride	50	49		1	98	70-130	06/04/2014 0908
Chlorobenzene	50	50		1	99	70-130	06/04/2014 0908
Chloroethane	50	49		1	97	42-163	06/04/2014 0908
Chloroform	50	49		1	98	70-130	06/04/2014 0908
Chloromethane (Methyl chloride)	50	47		1	94	60-140	06/04/2014 0908
Cyclohexane	50	46		1	93	70-130	06/04/2014 0908
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	70-130	06/04/2014 0908
Dibromochloromethane	50	50		1	99	70-130	06/04/2014 0908
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	06/04/2014 0908
1,4-Dichlorobenzene	50	49		1	98	70-130	06/04/2014 0908
1,3-Dichlorobenzene	50	51		1	101	70-130	06/04/2014 0908
1,2-Dichlorobenzene	50	49		1	97	70-130	06/04/2014 0908
Dichlorodifluoromethane	50	53		1	106	60-140	06/04/2014 0908
1,2-Dichloroethane	50	47		1	95	70-130	06/04/2014 0908
1,1-Dichloroethane	50	48		1	96	70-130	06/04/2014 0908
trans-1,2-Dichloroethene	50	51		1	103	70-130	06/04/2014 0908
cis-1,2-Dichloroethene	50	51		1	102	70-130	06/04/2014 0908
1,1-Dichloroethene	50	50		1	100	70-130	06/04/2014 0908
1,2-Dichloropropane	50	50		1	99	70-130	06/04/2014 0908
trans-1,3-Dichloropropene	50	52		1	104	70-130	06/04/2014 0908
cis-1,3-Dichloropropene	50	53		1	105	70-130	06/04/2014 0908
Ethylbenzene	50	51		1	102	70-130	06/04/2014 0908
2-Hexanone	100	95		1	95	60-140	06/04/2014 0908
Isopropylbenzene	50	53		1	105	70-130	06/04/2014 0908
Methyl acetate	50	45		1	90	70-130	06/04/2014 0908
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	06/04/2014 0908
4-Methyl-2-pentanone	100	91		1	91	60-140	06/04/2014 0908
Methylcyclohexane	50	51		1	102	70-130	06/04/2014 0908
Methylene chloride	50	45		1	91	70-130	06/04/2014 0908
Styrene	50	51		1	101	70-130	06/04/2014 0908
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	06/04/2014 0908
Tetrachloroethene	50	48		1	96	70-130	06/04/2014 0908
Toluene	50	53		1	105	70-130	06/04/2014 0908
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	60		1	119	70-130	06/04/2014 0908
1,2,4-Trichlorobenzene	50	52		1	103	70-130	06/04/2014 0908
1,1,2-Trichloroethane	50	50		1	101	70-130	06/04/2014 0908
1,1,1-Trichloroethane	50	48		1	96	70-130	06/04/2014 0908

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48192-002

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	06/04/2014 0908
Trichlorofluoromethane	50	55		1	110	70-130	06/04/2014 0908
Vinyl chloride	50	48		1	97	70-130	06/04/2014 0908
Xylenes (total)	100	100		1	102	70-130	06/04/2014 0908
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		89	70-130				
Toluene-d8		102	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48192-003

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	95		1	95	3.3	60-140	20	06/04/2014 0930
Benzene	50	53		1	105	3.2	70-130	20	06/04/2014 0930
Bromodichloromethane	50	50		1	101	2.3	70-130	20	06/04/2014 0930
Bromoform	50	50		1	100	1.1	70-130	20	06/04/2014 0930
Bromomethane (Methyl bromide)	50	45		1	90	2.3	60-140	20	06/04/2014 0930
2-Butanone (MEK)	100	110		1	111	6.9	60-140	20	06/04/2014 0930
Carbon disulfide	50	49		1	97	2.3	60-140	20	06/04/2014 0930
Carbon tetrachloride	50	52		1	104	5.4	70-130	20	06/04/2014 0930
Chlorobenzene	50	50		1	100	0.45	70-130	20	06/04/2014 0930
Chloroethane	50	49		1	97	0.26	42-163	20	06/04/2014 0930
Chloroform	50	50		1	101	3.1	70-130	20	06/04/2014 0930
Chloromethane (Methyl chloride)	50	48		1	97	2.6	60-140	20	06/04/2014 0930
Cyclohexane	50	46		1	92	0.22	70-130	20	06/04/2014 0930
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	3.3	70-130	20	06/04/2014 0930
Dibromochloromethane	50	50		1	99	0.20	70-130	20	06/04/2014 0930
1,2-Dibromoethane (EDB)	50	51		1	101	0.82	70-130	20	06/04/2014 0930
1,4-Dichlorobenzene	50	51		1	102	3.2	70-130	20	06/04/2014 0930
1,3-Dichlorobenzene	50	51		1	102	0.51	70-130	20	06/04/2014 0930
1,2-Dichlorobenzene	50	50		1	100	3.2	70-130	20	06/04/2014 0930
Dichlorodifluoromethane	50	56		1	112	6.3	60-140	20	06/04/2014 0930
1,2-Dichloroethane	50	48		1	97	1.8	70-130	20	06/04/2014 0930
1,1-Dichloroethane	50	49		1	98	2.6	70-130	20	06/04/2014 0930
trans-1,2-Dichloroethene	50	53		1	107	3.8	70-130	20	06/04/2014 0930
cis-1,2-Dichloroethene	50	53		1	106	3.8	70-130	20	06/04/2014 0930
1,1-Dichloroethene	50	53		1	106	5.6	70-130	20	06/04/2014 0930
1,2-Dichloropropane	50	51		1	102	3.0	70-130	20	06/04/2014 0930
trans-1,3-Dichloropropene	50	52		1	104	0.19	70-130	20	06/04/2014 0930
cis-1,3-Dichloropropene	50	53		1	107	1.3	70-130	20	06/04/2014 0930
Ethylbenzene	50	51		1	102	0.18	70-130	20	06/04/2014 0930
2-Hexanone	100	94		1	94	1.0	60-140	20	06/04/2014 0930
Isopropylbenzene	50	54		1	108	2.6	70-130	20	06/04/2014 0930
Methyl acetate	50	45		1	90	0.069	70-130	20	06/04/2014 0930
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.60	70-130	20	06/04/2014 0930
4-Methyl-2-pentanone	100	93		1	93	1.4	60-140	20	06/04/2014 0930
Methylcyclohexane	50	54		1	108	5.5	70-130	20	06/04/2014 0930
Methylene chloride	50	47		1	95	4.4	70-130	20	06/04/2014 0930
Styrene	50	51		1	101	0.20	70-130	20	06/04/2014 0930
1,1,2,2-Tetrachloroethane	50	52		1	103	0.062	70-130	20	06/04/2014 0930
Tetrachloroethene	50	49		1	99	3.0	70-130	20	06/04/2014 0930
Toluene	50	54		1	108	2.8	70-130	20	06/04/2014 0930
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	62		1	124	4.0	70-130	20	06/04/2014 0930
1,2,4-Trichlorobenzene	50	52		1	105	1.4	70-130	20	06/04/2014 0930
1,1,2-Trichloroethane	50	50		1	100	0.67	70-130	20	06/04/2014 0930
1,1,1-Trichloroethane	50	49		1	99	2.8	70-130	20	06/04/2014 0930

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48192-003

Matrix: Aqueous

Batch: 48192

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	51		1	103	4.3	70-130	20	06/04/2014 0930
Trichlorofluoromethane	50	57		1	115	3.8	70-130	20	06/04/2014 0930
Vinyl chloride	50	49		1	99	2.2	70-130	20	06/04/2014 0930
Xylenes (total)	100	100		1	102	0.69	70-130	20	06/04/2014 0930
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		91	70-130						
1,2-Dichloroethane-d4		89	70-130						
Toluene-d8		101	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48218-001

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	06/04/2014 1556
Benzene	ND		1	5.0	1.1	ug/kg	06/04/2014 1556
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
Bromoform	ND		1	5.0	0.70	ug/kg	06/04/2014 1556
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	06/04/2014 1556
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	06/04/2014 1556
Carbon disulfide	ND		1	5.0	1.3	ug/kg	06/04/2014 1556
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	06/04/2014 1556
Chlorobenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
Chloroethane	ND		1	5.0	1.3	ug/kg	06/04/2014 1556
Chloroform	ND		1	5.0	0.83	ug/kg	06/04/2014 1556
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	06/04/2014 1556
Cyclohexane	ND		1	5.0	0.67	ug/kg	06/04/2014 1556
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	06/04/2014 1556
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	06/04/2014 1556
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	06/04/2014 1556
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	06/04/2014 1556
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	06/04/2014 1556
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	06/04/2014 1556
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	06/04/2014 1556
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	06/04/2014 1556
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	06/04/2014 1556
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	06/04/2014 1556
Ethylbenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
2-Hexanone	ND		1	10	1.3	ug/kg	06/04/2014 1556
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	06/04/2014 1556
Methyl acetate	ND		1	5.0	0.98	ug/kg	06/04/2014 1556
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	06/04/2014 1556
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	06/04/2014 1556
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	06/04/2014 1556
Methylene chloride	ND		1	5.0	2.6	ug/kg	06/04/2014 1556
Styrene	ND		1	5.0	1.1	ug/kg	06/04/2014 1556
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	06/04/2014 1556
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	06/04/2014 1556
Toluene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	06/04/2014 1556
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	06/04/2014 1556
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	06/04/2014 1556
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	06/04/2014 1556

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48218-001

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	06/04/2014 1556
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	06/04/2014 1556
Vinyl chloride	ND		1	5.0	0.86	ug/kg	06/04/2014 1556
Xylenes (total)	ND		1	5.0	2.9	ug/kg	06/04/2014 1556
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		97	47-138				
1,2-Dichloroethane-d4		101	53-142				
Toluene-d8		107	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48218-002

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	60-140	06/04/2014 1424
Benzene	50	42		1	84	69-123	06/04/2014 1424
Bromodichloromethane	50	42		1	84	69-121	06/04/2014 1424
Bromoform	50	41		1	82	61-119	06/04/2014 1424
Bromomethane (Methyl bromide)	50	44		1	88	10-168	06/04/2014 1424
2-Butanone (MEK)	100	94		1	94	57-148	06/04/2014 1424
Carbon disulfide	50	41		1	81	58-122	06/04/2014 1424
Carbon tetrachloride	50	42		1	84	58-136	06/04/2014 1424
Chlorobenzene	50	42		1	83	59-129	06/04/2014 1424
Chloroethane	50	44		1	88	42-163	06/04/2014 1424
Chloroform	50	42		1	83	71-125	06/04/2014 1424
Chloromethane (Methyl chloride)	50	44		1	89	34-134	06/04/2014 1424
Cyclohexane	50	43		1	86	53-139	06/04/2014 1424
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	55-125	06/04/2014 1424
Dibromochloromethane	50	42		1	83	66-119	06/04/2014 1424
1,2-Dibromoethane (EDB)	50	42		1	84	74-124	06/04/2014 1424
1,4-Dichlorobenzene	50	41		1	83	52-133	06/04/2014 1424
1,3-Dichlorobenzene	50	42		1	84	51-134	06/04/2014 1424
1,2-Dichlorobenzene	50	42		1	84	57-131	06/04/2014 1424
Dichlorodifluoromethane	50	51		1	101	10-157	06/04/2014 1424
1,2-Dichloroethane	50	42		1	84	67-129	06/04/2014 1424
1,1-Dichloroethane	50	42		1	85	71-127	06/04/2014 1424
trans-1,2-Dichloroethene	50	42		1	85	68-131	06/04/2014 1424
cis-1,2-Dichloroethene	50	42		1	84	70-122	06/04/2014 1424
1,1-Dichloroethene	50	43		1	86	69-138	06/04/2014 1424
1,2-Dichloropropane	50	42		1	85	72-124	06/04/2014 1424
trans-1,3-Dichloropropene	50	42		1	83	70-124	06/04/2014 1424
cis-1,3-Dichloropropene	50	42		1	85	70-126	06/04/2014 1424
Ethylbenzene	50	42		1	85	59-128	06/04/2014 1424
2-Hexanone	100	96		1	96	54-137	06/04/2014 1424
Isopropylbenzene	50	41		1	83	50-136	06/04/2014 1424
Methyl acetate	50	48		1	96	59-137	06/04/2014 1424
Methyl tertiary butyl ether (MTBE)	50	41		1	83	70-130	06/04/2014 1424
4-Methyl-2-pentanone	100	88		1	88	60-134	06/04/2014 1424
Methylcyclohexane	50	43		1	87	41-144	06/04/2014 1424
Methylene chloride	50	41		1	83	70-130	06/04/2014 1424
Styrene	50	42		1	84	54-136	06/04/2014 1424
1,1,2,2-Tetrachloroethane	50	40		1	81	69-132	06/04/2014 1424
Tetrachloroethene	50	43		1	87	45-150	06/04/2014 1424
Toluene	50	43		1	85	61-129	06/04/2014 1424
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	49-136	06/04/2014 1424
1,2,4-Trichlorobenzene	50	44		1	88	34-145	06/04/2014 1424
1,1,1-Trichloroethane	50	42		1	85	63-128	06/04/2014 1424
1,1,2-Trichloroethane	50	39		1	77	55-128	06/04/2014 1424

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48218-002

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	43		1	87	62-126	06/04/2014 1424
Trichlorofluoromethane	50	44		1	88	45-138	06/04/2014 1424
Vinyl chloride	50	45		1	90	42-132	06/04/2014 1424
Xylenes (total)	100	86		1	86	58-128	06/04/2014 1424
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		103	47-138				
1,2-Dichloroethane-d4		101	53-142				
Toluene-d8		112	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48218-003

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	115	6.2	60-140	20	06/04/2014 1447
Benzene	50	43		1	86	2.1	69-123	20	06/04/2014 1447
Bromodichloromethane	50	42		1	83	0.60	69-121	20	06/04/2014 1447
Bromoform	50	43		1	87	5.2	61-119	20	06/04/2014 1447
Bromomethane (Methyl bromide)	50	44		1	88	0.70	10-168	20	06/04/2014 1447
2-Butanone (MEK)	100	100		1	102	7.8	57-148	20	06/04/2014 1447
Carbon disulfide	50	41		1	81	0.00	58-122	20	06/04/2014 1447
Carbon tetrachloride	50	42		1	83	0.67	58-136	20	06/04/2014 1447
Chlorobenzene	50	43		1	85	2.4	59-129	20	06/04/2014 1447
Chloroethane	50	42		1	85	3.5	42-163	20	06/04/2014 1447
Chloroform	50	42		1	84	0.97	71-125	20	06/04/2014 1447
Chloromethane (Methyl chloride)	50	43		1	86	3.1	34-134	20	06/04/2014 1447
Cyclohexane	50	43		1	87	1.0	53-139	20	06/04/2014 1447
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	92	10	55-125	20	06/04/2014 1447
Dibromochloromethane	50	42		1	84	1.4	66-119	20	06/04/2014 1447
1,2-Dibromoethane (EDB)	50	44		1	88	3.8	74-124	20	06/04/2014 1447
1,4-Dichlorobenzene	50	43		1	85	2.8	52-133	20	06/04/2014 1447
1,3-Dichlorobenzene	50	42		1	83	0.60	51-134	20	06/04/2014 1447
1,2-Dichlorobenzene	50	43		1	86	2.2	57-131	20	06/04/2014 1447
Dichlorodifluoromethane	50	48		1	96	5.3	10-157	20	06/04/2014 1447
1,2-Dichloroethane	50	44		1	87	3.8	67-129	20	06/04/2014 1447
1,1-Dichloroethane	50	42		1	84	0.85	71-127	20	06/04/2014 1447
trans-1,2-Dichloroethene	50	43		1	85	0.57	68-131	20	06/04/2014 1447
cis-1,2-Dichloroethene	50	43		1	85	1.5	70-122	20	06/04/2014 1447
1,1-Dichloroethene	50	43		1	86	0.12	69-138	20	06/04/2014 1447
1,2-Dichloropropane	50	41		1	83	2.3	72-124	20	06/04/2014 1447
trans-1,3-Dichloropropene	50	43		1	87	3.9	70-124	20	06/04/2014 1447
cis-1,3-Dichloropropene	50	43		1	86	0.83	70-126	20	06/04/2014 1447
Ethylbenzene	50	42		1	85	0.28	59-128	20	06/04/2014 1447
2-Hexanone	100	99		1	99	3.1	54-137	20	06/04/2014 1447
Isopropylbenzene	50	43		1	86	4.0	50-136	20	06/04/2014 1447
Methyl acetate	50	51		1	102	5.9	59-137	20	06/04/2014 1447
Methyl tertiary butyl ether (MTBE)	50	43		1	87	4.6	70-130	20	06/04/2014 1447
4-Methyl-2-pentanone	100	96		1	96	7.8	60-134	20	06/04/2014 1447
Methylcyclohexane	50	43		1	85	1.7	41-144	20	06/04/2014 1447
Methylene chloride	50	41		1	82	0.095	70-130	20	06/04/2014 1447
Styrene	50	43		1	86	2.2	54-136	20	06/04/2014 1447
1,1,2,2-Tetrachloroethane	50	42		1	84	4.3	69-132	20	06/04/2014 1447
Tetrachloroethene	50	43		1	87	0.062	45-150	20	06/04/2014 1447
Toluene	50	42		1	84	0.95	61-129	20	06/04/2014 1447
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	98	1.6	49-136	20	06/04/2014 1447
1,2,4-Trichlorobenzene	50	45		1	90	1.9	34-145	20	06/04/2014 1447
1,1,1-Trichloroethane	50	42		1	84	0.75	63-128	20	06/04/2014 1447
1,1,2-Trichloroethane	50	40		1	80	3.2	55-128	20	06/04/2014 1447

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48218-003

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	44		1	87	0.30	62-126	20	06/04/2014 1447
Trichlorofluoromethane	50	43		1	87	1.3	45-138	20	06/04/2014 1447
Vinyl chloride	50	43		1	86	4.5	42-132	20	06/04/2014 1447
Xylenes (total)	100	87		1	87	1.3	58-128	20	06/04/2014 1447
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		102	47-138						
1,2-Dichloroethane-d4		102	53-142						
Toluene-d8		111	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PF03066-002DU

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	ND	ND		1	0.00	20	06/04/2014 2150
Benzene	ND	ND		1	0.00	20	06/04/2014 2150
Bromodichloromethane	ND	ND		1	0.00	20	06/04/2014 2150
Bromoform	ND	ND		1	0.00	20	06/04/2014 2150
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	06/04/2014 2150
2-Butanone (MEK)	ND	ND		1	0.00	20	06/04/2014 2150
Carbon disulfide	ND	ND		1	0.00	20	06/04/2014 2150
Carbon tetrachloride	ND	ND		1	0.00	20	06/04/2014 2150
Chlorobenzene	ND	ND		1	0.00	20	06/04/2014 2150
Chloroethane	ND	ND		1	0.00	20	06/04/2014 2150
Chloroform	ND	ND		1	0.00	20	06/04/2014 2150
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	06/04/2014 2150
Cyclohexane	ND	ND		1	0.00	20	06/04/2014 2150
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	06/04/2014 2150
Dibromochloromethane	ND	ND		1	0.00	20	06/04/2014 2150
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	06/04/2014 2150
1,2-Dichlorobenzene	ND	ND		1	0.00	20	06/04/2014 2150
1,3-Dichlorobenzene	ND	ND		1	0.00	20	06/04/2014 2150
1,4-Dichlorobenzene	ND	ND		1	0.00	20	06/04/2014 2150
Dichlorodifluoromethane	ND	ND		1	0.00	20	06/04/2014 2150
1,1-Dichloroethane	ND	ND		1	0.00	20	06/04/2014 2150
1,2-Dichloroethane	ND	ND		1	0.00	20	06/04/2014 2150
1,1-Dichloroethene	ND	ND		1	0.00	20	06/04/2014 2150
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	06/04/2014 2150
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	06/04/2014 2150
1,2-Dichloropropane	ND	ND		1	0.00	20	06/04/2014 2150
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	06/04/2014 2150
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	06/04/2014 2150
Ethylbenzene	ND	ND		1	0.00	20	06/04/2014 2150
2-Hexanone	ND	ND		1	0.00	20	06/04/2014 2150
Isopropylbenzene	ND	ND		1	0.00	20	06/04/2014 2150
Methyl acetate	ND	ND		1	0.00	20	06/04/2014 2150
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	06/04/2014 2150
4-Methyl-2-pentanone	ND	ND		1	0.00	20	06/04/2014 2150
Methylcyclohexane	ND	ND		1	0.00	20	06/04/2014 2150
Methylene chloride	ND	ND		1	0.00	20	06/04/2014 2150
Styrene	1.4	ND		1	0.00	20	06/04/2014 2150
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	06/04/2014 2150
Tetrachloroethene	ND	ND		1	0.00	20	06/04/2014 2150
Toluene	ND	ND		1	0.00	20	06/04/2014 2150
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	06/04/2014 2150
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	06/04/2014 2150
1,1,1-Trichloroethane	ND	ND		1	0.00	20	06/04/2014 2150
1,1,2-Trichloroethane	ND	ND		1	0.00	20	06/04/2014 2150

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PF03066-002DU

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	06/04/2014 2150
Trichlorofluoromethane	ND	ND		1	0.00	20	06/04/2014 2150
Vinyl chloride	ND	ND		1	0.00	20	06/04/2014 2150
Xylenes (total)	ND	ND		1	0.00	20	06/04/2014 2150
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		100	53-142				
Bromofluorobenzene		92	47-138				
Toluene-d8		108	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PF03066-004MS

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	96	97		1	102	60-140	06/04/2014 2213
Benzene	ND	48	52		1	108	69-123	06/04/2014 2213
Bromodichloromethane	ND	48	49		1	102	69-121	06/04/2014 2213
Bromoform	ND	48	45		1	94	61-119	06/04/2014 2213
Bromomethane (Methyl bromide)	ND	48	54		1	113	35-144	06/04/2014 2213
2-Butanone (MEK)	ND	96	96		1	100	57-148	06/04/2014 2213
Carbon disulfide	ND	48	54		1	113	58-122	06/04/2014 2213
Carbon tetrachloride	ND	48	56		1	116	58-136	06/04/2014 2213
Chlorobenzene	ND	48	48		1	100	59-129	06/04/2014 2213
Chloroethane	ND	48	58		1	122	50-132	06/04/2014 2213
Chloroform	1.3	48	52		1	106	71-125	06/04/2014 2213
Chloromethane (Methyl chloride)	ND	48	63		1	131	34-134	06/04/2014 2213
Cyclohexane	ND	48	60		1	126	53-139	06/04/2014 2213
1,2-Dibromo-3-chloropropane (DBCP)	ND	48	45		1	94	55-125	06/04/2014 2213
Dibromochloromethane	ND	48	46		1	96	66-119	06/04/2014 2213
1,2-Dibromoethane (EDB)	ND	48	45		1	94	74-124	06/04/2014 2213
1,2-Dichlorobenzene	ND	48	47		1	98	57-131	06/04/2014 2213
1,3-Dichlorobenzene	ND	48	47		1	97	51-134	06/04/2014 2213
1,4-Dichlorobenzene	ND	48	47		1	98	52-133	06/04/2014 2213
Dichlorodifluoromethane	ND	48	70		1	146	10-157	06/04/2014 2213
1,1-Dichloroethane	ND	48	54		1	112	71-127	06/04/2014 2213
1,2-Dichloroethane	ND	48	50		1	104	67-129	06/04/2014 2213
1,1-Dichloroethene	ND	48	58		1	122	69-138	06/04/2014 2213
cis-1,2-Dichloroethene	8.6	48	56		1	102	70-122	06/04/2014 2213
trans-1,2-Dichloroethene	ND	48	56		1	117	68-131	06/04/2014 2213
1,2-Dichloropropane	ND	48	50		1	103	72-124	06/04/2014 2213
cis-1,3-Dichloropropene	ND	48	48		1	100	70-126	06/04/2014 2213
trans-1,3-Dichloropropene	ND	48	46		1	96	70-124	06/04/2014 2213
Ethylbenzene	ND	48	51		1	107	59-128	06/04/2014 2213
2-Hexanone	ND	96	84		1	88	54-137	06/04/2014 2213
Isopropylbenzene	ND	48	51		1	107	50-136	06/04/2014 2213
Methyl acetate	ND	48	53		1	112	59-137	06/04/2014 2213
Methyl tertiary butyl ether (MTBE)	ND	48	48		1	100	70-130	06/04/2014 2213
4-Methyl-2-pentanone	ND	96	93		1	97	60-134	06/04/2014 2213
Methylcyclohexane	ND	48	56		1	117	41-144	06/04/2014 2213
Methylene chloride	ND	48	50		1	104	77-129	06/04/2014 2213
Styrene	ND	48	49		1	103	54-136	06/04/2014 2213
1,1,2,2-Tetrachloroethane	ND	48	47		1	97	69-132	06/04/2014 2213
Tetrachloroethene	ND	48	54		1	112	70-130	06/04/2014 2213
Toluene	ND	48	51		1	107	61-129	06/04/2014 2213
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	48	67	N	1	139	49-136	06/04/2014 2213
1,2,4-Trichlorobenzene	ND	48	46		1	96	34-145	06/04/2014 2213
1,1,1-Trichloroethane	ND	48	55		1	114	63-128	06/04/2014 2213
1,1,2-Trichloroethane	ND	48	43		1	89	55-128	06/04/2014 2213

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PF03066-004MS

Matrix: Solid

Batch: 48218

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	21	48	58		1	84	62-126	06/04/2014 2213
Trichlorofluoromethane	ND	48	59		1	123	45-138	06/04/2014 2213
Vinyl chloride	ND	48	68	N	1	141	42-132	06/04/2014 2213
Xylenes (total)	ND	96	100		1	105	58-128	06/04/2014 2213
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		103	53-142					
Bromofluorobenzene		98	47-138					
Toluene-d8		113	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Number 18758

Chain of Custody Record

Client AEOM	Report to Contact Scott Ross	Sampler (Printed Name) Scott Ross	Quote No.
Address 3800 Fiber Place Ste 500		Waybill No.	Page 1 of 1
City Charleston	State SC	Zip Code 29405	Number of Containers
Project Name Shakespeare - Manbury		Bottle (See instructions on back) Preservative	
Project Number 0031982.5		 PF03066	
Telephone No. / Fax No. / Email (803) 201-5662			
Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Tho.			
P.O. Number			
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	
TMW-29-4	6/3/14	1020	
TMW-29-9	"	1025	
B-38-4	"	1332	
B-38-8	"	1339	
B-38-12	"	1345	
B-39-4	"	1540	
B-39-6	"	1545	
B-39-8	"	1550	
76060914			

Sample Disposal	Return to Client		Disposal by Lab	
	Date	Time	Date	Time
1. Relinquished by / Sampler <i>Scott Ross</i>	6/3/14			1830
2. Relinquished by				
3. Relinquished by				
4. Relinquished by				

G.C. Requirements (Specify) <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown	Possible Hazard Identification
1. Received by Date: _____ Time: _____	Date: _____ Time: _____
2. Received by Date: _____ Time: _____	Date: _____ Time: _____
3. Received by Date: _____ Time: _____	Date: _____ Time: _____
4. Laboratory Received by <i>Kelly Wilk</i> Date: 6-3-14 Time: 1830	Date: _____ Time: _____

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
 Received on Ice (check) Yes No Ice Pack Receipt Temp. **54.9** °C Temp. Bank Y / N

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: P-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 05/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: MAM/060314 Lot #: PF03066

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>198/199 °C</u> / <u> </u> °C / <u> </u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>(SRC)</u> phone, note (circle one), other: <u> </u> (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present >"pea-size" (½" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) <u> </u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u> </u> (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # <u> </u> .		
Sample(s) <u> </u> were received with bubbles >6 mm in diameter.		
Sample(s) <u> </u> were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by <u> </u> Date: <u> </u>		
Sample(s) <u> </u> were not received at a pH of >2 and were adjusted accordingly using SR# <u> </u>		
Sample labels applied by: <u>mam</u> Verified by: <u>mam</u> Date: <u>6/3/14</u>		

Comments:

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF04097**

Date Completed: **06/06/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF04097 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF04097

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF04097

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-40-4	Solid	06/04/2014 1009	06/04/2014
002	B-40-10	Solid	06/04/2014 1020	06/04/2014
003	B-40-14	Solid	06/04/2014 1025	06/04/2014
004	B-41-4	Solid	06/04/2014 1150	06/04/2014
005	B-41-8	Solid	06/04/2014 1155	06/04/2014
006	B-41-14	Solid	06/04/2014 1200	06/04/2014
007	B-42-4	Solid	06/04/2014 1520	06/04/2014
008	B-42-7	Solid	06/04/2014 1525	06/04/2014
009	B-42-12	Solid	06/04/2014 1530	06/04/2014
010	TB060414	Aqueous	06/04/2014	06/04/2014
011	TMW-29	Aqueous	06/04/2014 1040	06/04/2014
012	TMW-31	Aqueous	06/04/2014 1600	06/04/2014

(12 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF04097

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
005	B-41-8	Solid	Methyl acetate	8260B	150	J	ug/kg	13
011	TMW-29	Aqueous	Acetone	8260B	55		ug/L	25
011	TMW-29	Aqueous	Styrene	8260B	81		ug/L	25
011	TMW-29	Aqueous	Trichloroethene	8260B	25		ug/L	26
012	TMW-31	Aqueous	cis-1,2-Dichloroethene	8260B	2.4	J	ug/L	27
012	TMW-31	Aqueous	Styrene	8260B	32	J	ug/L	27
012	TMW-31	Aqueous	Trichloroethene	8260B	470		ug/L	28

(7 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-001
Description: B-40-4	Matrix: Solid
Date Sampled: 06/04/2014 1009	% Solids: 84.8 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0214	JJG		48357	5.88

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1000	340	ug/kg	1
Benzene	71-43-2	8260B	ND		250	55	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		250	85	ug/kg	1
Bromoform	75-25-2	8260B	ND		250	35	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		250	90	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	120	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		250	65	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		250	90	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		250	85	ug/kg	1
Chloroethane	75-00-3	8260B	ND		250	65	ug/kg	1
Chloroform	67-66-3	8260B	ND		250	42	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		250	50	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		250	34	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		250	75	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		250	85	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		250	43	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		250	85	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		250	85	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		250	85	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		250	80	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		250	37	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	50	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		250	85	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		250	38	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		250	75	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		250	46	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		250	34	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		250	41	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		250	85	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		500	65	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		250	12	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		250	49	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	75	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		250	21	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		250	130	ug/kg	1
Styrene	100-42-5	8260B	ND		250	55	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		250	24	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		250	25	ug/kg	1
Toluene	108-88-3	8260B	ND		250	85	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		250	32	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		250	85	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		250	43	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		250	40	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-001
Description: B-40-4	Matrix: Solid
Date Sampled: 06/04/2014 1009	% Solids: 84.8 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0214	JJG		48357	5.88

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		250	95	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		250	75	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		250	43	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		250	150	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		104	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-002
Description: B-40-10	Matrix: Solid
Date Sampled: 06/04/2014 1020	% Solids: 81.3 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0237	JJG		48357	5.87

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1000	350	ug/kg	1
Benzene	71-43-2	8260B	ND		260	58	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		260	89	ug/kg	1
Bromoform	75-25-2	8260B	ND		260	37	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		260	94	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		520	130	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		260	68	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		260	94	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		260	89	ug/kg	1
Chloroethane	75-00-3	8260B	ND		260	68	ug/kg	1
Chloroform	67-66-3	8260B	ND		260	43	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		260	52	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		260	35	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		260	79	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		260	89	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		260	45	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		260	89	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		260	89	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		260	89	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		260	84	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		260	38	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		260	52	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		260	89	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		260	40	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		260	79	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		260	48	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		260	36	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		260	43	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		260	89	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		520	68	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		260	12	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		260	51	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		260	21	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		520	79	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		260	21	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		260	140	ug/kg	1
Styrene	100-42-5	8260B	ND		260	58	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		260	25	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		260	26	ug/kg	1
Toluene	108-88-3	8260B	ND		260	89	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		260	33	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		260	89	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		260	45	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		260	41	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-002
Description: B-40-10	Matrix: Solid
Date Sampled: 06/04/2014 1020	% Solids: 81.3 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0237	JJG		48357	5.87

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		260	99	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		260	79	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		260	45	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		260	150	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	53-142
Bromofluorobenzene		87	47-138
Toluene-d8		104	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-003
Description: B-40-14	Matrix: Solid
Date Sampled: 06/04/2014 1025	% Solids: 78.6 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0300	JJG		48357	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1200	390	ug/kg	1
Benzene	71-43-2	8260B	ND		290	64	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		290	99	ug/kg	1
Bromoform	75-25-2	8260B	ND		290	41	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		290	100	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		580	140	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		290	76	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		290	100	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		290	99	ug/kg	1
Chloroethane	75-00-3	8260B	ND		290	76	ug/kg	1
Chloroform	67-66-3	8260B	ND		290	48	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		290	58	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		290	39	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		290	87	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		290	99	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		290	49	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		290	99	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		290	99	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		290	99	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		290	93	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		290	42	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		290	58	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		290	99	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		290	44	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		290	87	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		290	53	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		290	40	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		290	48	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		290	99	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		580	76	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		290	13	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		290	57	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		290	23	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		580	87	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		290	24	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		290	150	ug/kg	1
Styrene	100-42-5	8260B	ND		290	64	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		290	27	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		290	29	ug/kg	1
Toluene	108-88-3	8260B	ND		290	99	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		290	37	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		290	99	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		290	49	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		290	46	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-003
Description: B-40-14	Matrix: Solid
Date Sampled: 06/04/2014 1025	% Solids: 78.6 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0300	JJG		48357	5.47

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		290	110	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		290	87	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		290	50	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		290	170	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	53-142
Bromofluorobenzene		97	47-138
Toluene-d8		113	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-004
Description: B-41-4	Matrix: Solid
Date Sampled: 06/04/2014 1150	% Solids: 79.7 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0323	JJG		48357	5.63

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1100	370	ug/kg	1
Benzene	71-43-2	8260B	ND		280	61	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		280	95	ug/kg	1
Bromoform	75-25-2	8260B	ND		280	39	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		280	100	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		560	130	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		280	72	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		280	100	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		280	95	ug/kg	1
Chloroethane	75-00-3	8260B	ND		280	72	ug/kg	1
Chloroform	67-66-3	8260B	ND		280	46	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		280	56	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		280	38	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		280	84	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		280	95	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		280	47	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		280	95	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		280	95	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		280	95	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		280	89	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		280	41	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		280	56	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		280	95	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		280	42	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		280	84	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		280	51	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		280	38	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		280	46	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		280	95	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		560	72	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		280	13	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		280	55	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		280	22	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		560	84	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		280	23	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		280	140	ug/kg	1
Styrene	100-42-5	8260B	ND		280	61	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		280	26	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		280	28	ug/kg	1
Toluene	108-88-3	8260B	ND		280	95	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		280	35	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		280	95	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		280	47	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		280	44	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-004
Description: B-41-4	Matrix: Solid
Date Sampled: 06/04/2014 1150	% Solids: 79.7 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0323	JJG		48357	5.63

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		280	110	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		280	84	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		280	48	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		280	160	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		82	53-142
Bromofluorobenzene		69	47-138
Toluene-d8		83	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-005
Description: B-41-8	Matrix: Solid
Date Sampled: 06/04/2014 1155	% Solids: 90.9 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0347	JJG		48357	6.08

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		900	300	ug/kg	1
Benzene	71-43-2	8260B	ND		230	50	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		230	77	ug/kg	1
Bromoform	75-25-2	8260B	ND		230	32	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		230	81	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		450	110	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		230	59	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		230	81	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		230	77	ug/kg	1
Chloroethane	75-00-3	8260B	ND		230	59	ug/kg	1
Chloroform	67-66-3	8260B	ND		230	38	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		230	45	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		230	30	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		230	68	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		230	77	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		230	38	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		230	77	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		230	77	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		230	77	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		230	72	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		230	33	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		230	45	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		230	77	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		230	34	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		230	68	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		230	41	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		230	31	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		230	37	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		230	77	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		450	59	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		230	10	ug/kg	1
Methyl acetate	79-20-9	8260B	150	J	230	44	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		230	18	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		450	68	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		230	19	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		230	120	ug/kg	1
Styrene	100-42-5	8260B	ND		230	50	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		230	21	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		230	23	ug/kg	1
Toluene	108-88-3	8260B	ND		230	77	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		230	29	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		230	77	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		230	38	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		230	36	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-005
Description: B-41-8	Matrix: Solid
Date Sampled: 06/04/2014 1155	% Solids: 90.9 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0347	JJG		48357	6.08

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		230	86	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		230	68	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		230	39	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		230	130	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	53-142
Bromofluorobenzene		101	47-138
Toluene-d8		121	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-006
Description: B-41-14	Matrix: Solid
Date Sampled: 06/04/2014 1200	% Solids: 83.8 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0410	JJG		48357	5.94

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1000	340	ug/kg	1
Benzene	71-43-2	8260B	ND		250	55	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		250	85	ug/kg	1
Bromoform	75-25-2	8260B	ND		250	35	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		250	90	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	120	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		250	65	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		250	90	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		250	85	ug/kg	1
Chloroethane	75-00-3	8260B	ND		250	65	ug/kg	1
Chloroform	67-66-3	8260B	ND		250	42	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		250	50	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		250	34	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		250	75	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		250	85	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		250	43	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		250	85	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		250	85	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		250	85	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		250	80	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		250	37	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	50	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		250	85	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		250	38	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		250	75	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		250	46	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		250	34	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		250	41	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		250	85	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		500	65	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		250	12	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		250	49	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	75	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		250	21	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		250	130	ug/kg	1
Styrene	100-42-5	8260B	ND		250	55	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		250	24	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		250	25	ug/kg	1
Toluene	108-88-3	8260B	ND		250	85	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		250	32	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		250	85	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		250	43	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		250	40	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-006
Description: B-41-14	Matrix: Solid
Date Sampled: 06/04/2014 1200	% Solids: 83.8 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0410	JJG		48357	5.94

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		250	95	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		250	75	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		250	43	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		250	150	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		77	47-138
Toluene-d8		92	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-007
Description: B-42-4	Matrix: Solid
Date Sampled: 06/04/2014 1520	% Solids: 91.6 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0433	JJG		48357	5.60

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		970	330	ug/kg	1
Benzene	71-43-2	8260B	ND		240	54	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		240	83	ug/kg	1
Bromoform	75-25-2	8260B	ND		240	34	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		240	88	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		490	120	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		240	63	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		240	88	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		240	83	ug/kg	1
Chloroethane	75-00-3	8260B	ND		240	63	ug/kg	1
Chloroform	67-66-3	8260B	ND		240	40	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		240	49	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		240	33	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		240	73	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		240	83	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		240	41	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		240	83	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		240	83	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		240	83	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		240	78	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		240	36	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		240	49	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		240	83	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		240	37	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		240	73	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		240	44	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		240	33	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		240	40	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		240	83	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		490	63	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		240	11	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		240	48	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		240	19	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		490	73	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		240	20	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		240	130	ug/kg	1
Styrene	100-42-5	8260B	ND		240	54	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		240	23	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		240	24	ug/kg	1
Toluene	108-88-3	8260B	ND		240	83	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		240	31	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		240	83	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		240	41	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		240	38	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-007
Description: B-42-4	Matrix: Solid
Date Sampled: 06/04/2014 1520	% Solids: 91.6 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0433	JJG		48357	5.60

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		240	93	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		240	73	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		240	42	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		240	140	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	53-142
Bromofluorobenzene		79	47-138
Toluene-d8		98	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-008
Description: B-42-7	Matrix: Solid
Date Sampled: 06/04/2014 1525	% Solids: 81.4 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0456	JJG		48357	5.40

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1100	380	ug/kg	1
Benzene	71-43-2	8260B	ND		280	63	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		280	97	ug/kg	1
Bromoform	75-25-2	8260B	ND		280	40	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		280	100	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		570	140	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		280	74	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		280	100	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		280	97	ug/kg	1
Chloroethane	75-00-3	8260B	ND		280	74	ug/kg	1
Chloroform	67-66-3	8260B	ND		280	47	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		280	57	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		280	38	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		280	85	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		280	97	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		280	48	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		280	97	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		280	97	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		280	97	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		280	91	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		280	41	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		280	57	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		280	97	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		280	43	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		280	85	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		280	52	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		280	39	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		280	47	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		280	97	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		570	74	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		280	13	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		280	56	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		280	23	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		570	85	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		280	23	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		280	150	ug/kg	1
Styrene	100-42-5	8260B	ND		280	63	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		280	27	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		280	28	ug/kg	1
Toluene	108-88-3	8260B	ND		280	97	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		280	36	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		280	97	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		280	48	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		280	45	ug/kg	1

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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-008
Description: B-42-7	Matrix: Solid
Date Sampled: 06/04/2014 1525	% Solids: 81.4 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0456	JJG		48357	5.40

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		280	110	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		280	85	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		280	49	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		280	160	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	53-142
Bromofluorobenzene		81	47-138
Toluene-d8		101	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-009
Description: B-42-12	Matrix: Solid
Date Sampled: 06/04/2014 1530	% Solids: 79.5 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0519	JJG		48357	5.17

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		1200	410	ug/kg	1
Benzene	71-43-2	8260B	ND		300	67	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		300	100	ug/kg	1
Bromoform	75-25-2	8260B	ND		300	43	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		300	110	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		610	150	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		300	79	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		300	110	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		300	100	ug/kg	1
Chloroethane	75-00-3	8260B	ND		300	79	ug/kg	1
Chloroform	67-66-3	8260B	ND		300	50	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		300	61	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		300	41	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		300	91	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		300	100	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		300	52	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		300	100	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		300	100	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		300	100	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		300	97	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		300	44	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		300	61	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		300	100	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		300	46	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		300	91	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		300	55	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		300	41	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		300	50	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		300	100	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		610	79	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		300	14	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		300	60	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		300	24	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		610	91	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		300	25	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		300	160	ug/kg	1
Styrene	100-42-5	8260B	ND		300	67	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		300	29	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		300	30	ug/kg	1
Toluene	108-88-3	8260B	ND		300	100	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		300	38	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		300	100	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		300	52	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		300	48	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-009
Description: B-42-12	Matrix: Solid
Date Sampled: 06/04/2014 1530	% Solids: 79.5 04/01/2014 2153
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	50	06/06/2014 0519	JJG		48357	5.17

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		300	120	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		300	91	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		300	52	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		300	180	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	53-142
Bromofluorobenzene		77	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-010
Description: TB060414	Matrix: Aqueous
Date Sampled: 06/04/2014	
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/05/2014 1057	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-010
Description: TB060414	Matrix: Aqueous
Date Sampled: 06/04/2014	
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/05/2014 1057	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PF04097-011**

 Description: **TMW-29**

 Matrix: **Aqueous**

 Date Sampled: **06/04/2014 1040**

 Date Received: **06/04/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/05/2014 1141	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	55		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	81		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-011
Description: TMW-29	Matrix: Aqueous
Date Sampled: 06/04/2014 1040	
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/05/2014 1141	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	25		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-012
Description: TMW-31	Matrix: Aqueous
Date Sampled: 06/04/2014 1600	
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/05/2014 1204	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.4	J	50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	32	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF04097-012
Description: TMW-31	Matrix: Aqueous
Date Sampled: 06/04/2014 1600	
Date Received: 06/04/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/05/2014 1204	JHD		48284

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	470		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48284-001

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/05/2014 1034
Benzene	ND		1	5.0	0.20	ug/L	06/05/2014 1034
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Bromoform	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/05/2014 1034
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/05/2014 1034
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Chloroethane	ND		1	5.0	0.50	ug/L	06/05/2014 1034
Chloroform	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Cyclohexane	ND		1	5.0	0.98	ug/L	06/05/2014 1034
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/05/2014 1034
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/05/2014 1034
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/05/2014 1034
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/05/2014 1034
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/05/2014 1034
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
2-Hexanone	ND		1	10	1.0	ug/L	06/05/2014 1034
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/05/2014 1034
Methyl acetate	ND		1	5.0	0.72	ug/L	06/05/2014 1034
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2014 1034
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/05/2014 1034
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/05/2014 1034
Methylene chloride	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Styrene	ND		1	5.0	0.10	ug/L	06/05/2014 1034
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Toluene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/05/2014 1034

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48284-001

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/05/2014 1034
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		92	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48284-002

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	60-140	06/05/2014 0903
Benzene	50	50		1	100	70-130	06/05/2014 0903
Bromodichloromethane	50	49		1	97	70-130	06/05/2014 0903
Bromoform	50	48		1	96	70-130	06/05/2014 0903
Bromomethane (Methyl bromide)	50	43		1	86	60-140	06/05/2014 0903
2-Butanone (MEK)	100	110		1	105	60-140	06/05/2014 0903
Carbon disulfide	50	47		1	95	60-140	06/05/2014 0903
Carbon tetrachloride	50	51		1	101	70-130	06/05/2014 0903
Chlorobenzene	50	48		1	97	70-130	06/05/2014 0903
Chloroethane	50	44		1	89	42-163	06/05/2014 0903
Chloroform	50	49		1	97	70-130	06/05/2014 0903
Chloromethane (Methyl chloride)	50	46		1	93	60-140	06/05/2014 0903
Cyclohexane	50	46		1	92	70-130	06/05/2014 0903
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	95	70-130	06/05/2014 0903
Dibromochloromethane	50	49		1	98	70-130	06/05/2014 0903
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	06/05/2014 0903
1,4-Dichlorobenzene	50	49		1	98	70-130	06/05/2014 0903
1,3-Dichlorobenzene	50	50		1	100	70-130	06/05/2014 0903
1,2-Dichlorobenzene	50	49		1	97	70-130	06/05/2014 0903
Dichlorodifluoromethane	50	54		1	107	60-140	06/05/2014 0903
1,2-Dichloroethane	50	47		1	95	70-130	06/05/2014 0903
1,1-Dichloroethane	50	48		1	95	70-130	06/05/2014 0903
trans-1,2-Dichloroethene	50	52		1	103	70-130	06/05/2014 0903
cis-1,2-Dichloroethene	50	50		1	100	70-130	06/05/2014 0903
1,1-Dichloroethene	50	52		1	103	70-130	06/05/2014 0903
1,2-Dichloropropane	50	48		1	97	70-130	06/05/2014 0903
trans-1,3-Dichloropropene	50	51		1	102	70-130	06/05/2014 0903
cis-1,3-Dichloropropene	50	51		1	103	70-130	06/05/2014 0903
Ethylbenzene	50	50		1	100	70-130	06/05/2014 0903
2-Hexanone	100	92		1	92	60-140	06/05/2014 0903
Isopropylbenzene	50	53		1	106	70-130	06/05/2014 0903
Methyl acetate	50	46		1	92	70-130	06/05/2014 0903
Methyl tertiary butyl ether (MTBE)	50	49		1	97	70-130	06/05/2014 0903
4-Methyl-2-pentanone	100	90		1	90	60-140	06/05/2014 0903
Methylcyclohexane	50	52		1	103	70-130	06/05/2014 0903
Methylene chloride	50	45		1	90	70-130	06/05/2014 0903
Styrene	50	50		1	99	70-130	06/05/2014 0903
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	06/05/2014 0903
Tetrachloroethene	50	48		1	96	70-130	06/05/2014 0903
Toluene	50	52		1	104	70-130	06/05/2014 0903
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	119	70-130	06/05/2014 0903
1,2,4-Trichlorobenzene	50	51		1	102	70-130	06/05/2014 0903
1,1,2-Trichloroethane	50	49		1	98	70-130	06/05/2014 0903
1,1,1-Trichloroethane	50	48		1	97	70-130	06/05/2014 0903

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48284-002

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	06/05/2014 0903
Trichlorofluoromethane	50	55		1	111	70-130	06/05/2014 0903
Vinyl chloride	50	47		1	94	70-130	06/05/2014 0903
Xylenes (total)	100	100		1	100	70-130	06/05/2014 0903
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichloroethane-d4		89	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48284-003

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	93		1	93	5.2	60-140	20	06/05/2014 0926
Benzene	50	48		1	95	5.0	70-130	20	06/05/2014 0926
Bromodichloromethane	50	47		1	94	4.2	70-130	20	06/05/2014 0926
Bromoform	50	48		1	95	0.81	70-130	20	06/05/2014 0926
Bromomethane (Methyl bromide)	50	40		1	80	8.0	60-140	20	06/05/2014 0926
2-Butanone (MEK)	100	100		1	104	1.2	60-140	20	06/05/2014 0926
Carbon disulfide	50	43		1	87	8.8	60-140	20	06/05/2014 0926
Carbon tetrachloride	50	48		1	95	6.2	70-130	20	06/05/2014 0926
Chlorobenzene	50	48		1	96	0.97	70-130	20	06/05/2014 0926
Chloroethane	50	43		1	87	2.4	42-163	20	06/05/2014 0926
Chloroform	50	47		1	93	3.8	70-130	20	06/05/2014 0926
Chloromethane (Methyl chloride)	50	43		1	86	8.2	60-140	20	06/05/2014 0926
Cyclohexane	50	42		1	84	8.3	70-130	20	06/05/2014 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	2.1	70-130	20	06/05/2014 0926
Dibromochloromethane	50	48		1	96	1.3	70-130	20	06/05/2014 0926
1,2-Dibromoethane (EDB)	50	50		1	100	0.80	70-130	20	06/05/2014 0926
1,4-Dichlorobenzene	50	48		1	97	1.3	70-130	20	06/05/2014 0926
1,3-Dichlorobenzene	50	49		1	97	2.7	70-130	20	06/05/2014 0926
1,2-Dichlorobenzene	50	48		1	96	1.1	70-130	20	06/05/2014 0926
Dichlorodifluoromethane	50	49		1	97	10	60-140	20	06/05/2014 0926
1,2-Dichloroethane	50	47		1	93	1.8	70-130	20	06/05/2014 0926
1,1-Dichloroethane	50	46		1	91	4.4	70-130	20	06/05/2014 0926
trans-1,2-Dichloroethene	50	49		1	99	4.3	70-130	20	06/05/2014 0926
cis-1,2-Dichloroethene	50	49		1	98	2.8	70-130	20	06/05/2014 0926
1,1-Dichloroethene	50	48		1	96	7.2	70-130	20	06/05/2014 0926
1,2-Dichloropropane	50	47		1	94	3.6	70-130	20	06/05/2014 0926
trans-1,3-Dichloropropene	50	50		1	99	2.6	70-130	20	06/05/2014 0926
cis-1,3-Dichloropropene	50	50		1	100	2.8	70-130	20	06/05/2014 0926
Ethylbenzene	50	49		1	99	1.3	70-130	20	06/05/2014 0926
2-Hexanone	100	92		1	92	0.066	60-140	20	06/05/2014 0926
Isopropylbenzene	50	51		1	102	3.6	70-130	20	06/05/2014 0926
Methyl acetate	50	45		1	90	2.6	70-130	20	06/05/2014 0926
Methyl tertiary butyl ether (MTBE)	50	47		1	94	3.9	70-130	20	06/05/2014 0926
4-Methyl-2-pentanone	100	89		1	89	1.2	60-140	20	06/05/2014 0926
Methylcyclohexane	50	48		1	96	6.7	70-130	20	06/05/2014 0926
Methylene chloride	50	44		1	87	3.5	70-130	20	06/05/2014 0926
Styrene	50	48		1	97	2.5	70-130	20	06/05/2014 0926
1,1,2,2-Tetrachloroethane	50	51		1	101	0.53	70-130	20	06/05/2014 0926
Tetrachloroethene	50	46		1	93	3.0	70-130	20	06/05/2014 0926
Toluene	50	50		1	99	4.2	70-130	20	06/05/2014 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	112	6.2	70-130	20	06/05/2014 0926
1,2,4-Trichlorobenzene	50	50		1	99	2.6	70-130	20	06/05/2014 0926
1,1,2-Trichloroethane	50	48		1	97	0.97	70-130	20	06/05/2014 0926
1,1,1-Trichloroethane	50	46		1	92	4.7	70-130	20	06/05/2014 0926

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48284-003

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	94	5.1	70-130	20	06/05/2014 0926
Trichlorofluoromethane	50	51		1	101	8.7	70-130	20	06/05/2014 0926
Vinyl chloride	50	44		1	87	7.6	70-130	20	06/05/2014 0926
Xylenes (total)	100	97		1	97	2.5	70-130	20	06/05/2014 0926
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		92	70-130						
1,2-Dichloroethane-d4		89	70-130						
Toluene-d8		99	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48284-001

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/05/2014 1034
Benzene	ND		1	5.0	0.20	ug/L	06/05/2014 1034
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Bromoform	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/05/2014 1034
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/05/2014 1034
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Chloroethane	ND		1	5.0	0.50	ug/L	06/05/2014 1034
Chloroform	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Cyclohexane	ND		1	5.0	0.98	ug/L	06/05/2014 1034
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/05/2014 1034
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/05/2014 1034
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/05/2014 1034
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/05/2014 1034
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/05/2014 1034
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
2-Hexanone	ND		1	10	1.0	ug/L	06/05/2014 1034
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/05/2014 1034
Methyl acetate	ND		1	5.0	0.72	ug/L	06/05/2014 1034
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2014 1034
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/05/2014 1034
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/05/2014 1034
Methylene chloride	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Styrene	ND		1	5.0	0.10	ug/L	06/05/2014 1034
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/05/2014 1034
Toluene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/05/2014 1034
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/05/2014 1034

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48284-001

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/05/2014 1034
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/05/2014 1034
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2014 1034
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		92	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48284-002

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	60-140	06/05/2014 0903
Benzene	50	50		1	100	70-130	06/05/2014 0903
Bromodichloromethane	50	49		1	97	70-130	06/05/2014 0903
Bromoform	50	48		1	96	70-130	06/05/2014 0903
Bromomethane (Methyl bromide)	50	43		1	86	60-140	06/05/2014 0903
2-Butanone (MEK)	100	110		1	105	60-140	06/05/2014 0903
Carbon disulfide	50	47		1	95	60-140	06/05/2014 0903
Carbon tetrachloride	50	51		1	101	70-130	06/05/2014 0903
Chlorobenzene	50	48		1	97	70-130	06/05/2014 0903
Chloroethane	50	44		1	89	42-163	06/05/2014 0903
Chloroform	50	49		1	97	70-130	06/05/2014 0903
Chloromethane (Methyl chloride)	50	46		1	93	60-140	06/05/2014 0903
Cyclohexane	50	46		1	92	70-130	06/05/2014 0903
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	95	70-130	06/05/2014 0903
Dibromochloromethane	50	49		1	98	70-130	06/05/2014 0903
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	06/05/2014 0903
1,4-Dichlorobenzene	50	49		1	98	70-130	06/05/2014 0903
1,3-Dichlorobenzene	50	50		1	100	70-130	06/05/2014 0903
1,2-Dichlorobenzene	50	49		1	97	70-130	06/05/2014 0903
Dichlorodifluoromethane	50	54		1	107	60-140	06/05/2014 0903
1,2-Dichloroethane	50	47		1	95	70-130	06/05/2014 0903
1,1-Dichloroethane	50	48		1	95	70-130	06/05/2014 0903
trans-1,2-Dichloroethene	50	52		1	103	70-130	06/05/2014 0903
cis-1,2-Dichloroethene	50	50		1	100	70-130	06/05/2014 0903
1,1-Dichloroethene	50	52		1	103	70-130	06/05/2014 0903
1,2-Dichloropropane	50	48		1	97	70-130	06/05/2014 0903
trans-1,3-Dichloropropene	50	51		1	102	70-130	06/05/2014 0903
cis-1,3-Dichloropropene	50	51		1	103	70-130	06/05/2014 0903
Ethylbenzene	50	50		1	100	70-130	06/05/2014 0903
2-Hexanone	100	92		1	92	60-140	06/05/2014 0903
Isopropylbenzene	50	53		1	106	70-130	06/05/2014 0903
Methyl acetate	50	46		1	92	70-130	06/05/2014 0903
Methyl tertiary butyl ether (MTBE)	50	49		1	97	70-130	06/05/2014 0903
4-Methyl-2-pentanone	100	90		1	90	60-140	06/05/2014 0903
Methylcyclohexane	50	52		1	103	70-130	06/05/2014 0903
Methylene chloride	50	45		1	90	70-130	06/05/2014 0903
Styrene	50	50		1	99	70-130	06/05/2014 0903
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	06/05/2014 0903
Tetrachloroethene	50	48		1	96	70-130	06/05/2014 0903
Toluene	50	52		1	104	70-130	06/05/2014 0903
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	119	70-130	06/05/2014 0903
1,2,4-Trichlorobenzene	50	51		1	102	70-130	06/05/2014 0903
1,1,2-Trichloroethane	50	49		1	98	70-130	06/05/2014 0903
1,1,1-Trichloroethane	50	48		1	97	70-130	06/05/2014 0903

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48284-002

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	06/05/2014 0903
Trichlorofluoromethane	50	55		1	111	70-130	06/05/2014 0903
Vinyl chloride	50	47		1	94	70-130	06/05/2014 0903
Xylenes (total)	100	100		1	100	70-130	06/05/2014 0903
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichloroethane-d4		89	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48284-003

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	93		1	93	5.2	60-140	20	06/05/2014 0926
Benzene	50	48		1	95	5.0	70-130	20	06/05/2014 0926
Bromodichloromethane	50	47		1	94	4.2	70-130	20	06/05/2014 0926
Bromoform	50	48		1	95	0.81	70-130	20	06/05/2014 0926
Bromomethane (Methyl bromide)	50	40		1	80	8.0	60-140	20	06/05/2014 0926
2-Butanone (MEK)	100	100		1	104	1.2	60-140	20	06/05/2014 0926
Carbon disulfide	50	43		1	87	8.8	60-140	20	06/05/2014 0926
Carbon tetrachloride	50	48		1	95	6.2	70-130	20	06/05/2014 0926
Chlorobenzene	50	48		1	96	0.97	70-130	20	06/05/2014 0926
Chloroethane	50	43		1	87	2.4	42-163	20	06/05/2014 0926
Chloroform	50	47		1	93	3.8	70-130	20	06/05/2014 0926
Chloromethane (Methyl chloride)	50	43		1	86	8.2	60-140	20	06/05/2014 0926
Cyclohexane	50	42		1	84	8.3	70-130	20	06/05/2014 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	2.1	70-130	20	06/05/2014 0926
Dibromochloromethane	50	48		1	96	1.3	70-130	20	06/05/2014 0926
1,2-Dibromoethane (EDB)	50	50		1	100	0.80	70-130	20	06/05/2014 0926
1,4-Dichlorobenzene	50	48		1	97	1.3	70-130	20	06/05/2014 0926
1,3-Dichlorobenzene	50	49		1	97	2.7	70-130	20	06/05/2014 0926
1,2-Dichlorobenzene	50	48		1	96	1.1	70-130	20	06/05/2014 0926
Dichlorodifluoromethane	50	49		1	97	10	60-140	20	06/05/2014 0926
1,2-Dichloroethane	50	47		1	93	1.8	70-130	20	06/05/2014 0926
1,1-Dichloroethane	50	46		1	91	4.4	70-130	20	06/05/2014 0926
trans-1,2-Dichloroethene	50	49		1	99	4.3	70-130	20	06/05/2014 0926
cis-1,2-Dichloroethene	50	49		1	98	2.8	70-130	20	06/05/2014 0926
1,1-Dichloroethene	50	48		1	96	7.2	70-130	20	06/05/2014 0926
1,2-Dichloropropane	50	47		1	94	3.6	70-130	20	06/05/2014 0926
trans-1,3-Dichloropropene	50	50		1	99	2.6	70-130	20	06/05/2014 0926
cis-1,3-Dichloropropene	50	50		1	100	2.8	70-130	20	06/05/2014 0926
Ethylbenzene	50	49		1	99	1.3	70-130	20	06/05/2014 0926
2-Hexanone	100	92		1	92	0.066	60-140	20	06/05/2014 0926
Isopropylbenzene	50	51		1	102	3.6	70-130	20	06/05/2014 0926
Methyl acetate	50	45		1	90	2.6	70-130	20	06/05/2014 0926
Methyl tertiary butyl ether (MTBE)	50	47		1	94	3.9	70-130	20	06/05/2014 0926
4-Methyl-2-pentanone	100	89		1	89	1.2	60-140	20	06/05/2014 0926
Methylcyclohexane	50	48		1	96	6.7	70-130	20	06/05/2014 0926
Methylene chloride	50	44		1	87	3.5	70-130	20	06/05/2014 0926
Styrene	50	48		1	97	2.5	70-130	20	06/05/2014 0926
1,1,2,2-Tetrachloroethane	50	51		1	101	0.53	70-130	20	06/05/2014 0926
Tetrachloroethene	50	46		1	93	3.0	70-130	20	06/05/2014 0926
Toluene	50	50		1	99	4.2	70-130	20	06/05/2014 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	112	6.2	70-130	20	06/05/2014 0926
1,2,4-Trichlorobenzene	50	50		1	99	2.6	70-130	20	06/05/2014 0926
1,1,2-Trichloroethane	50	48		1	97	0.97	70-130	20	06/05/2014 0926
1,1,1-Trichloroethane	50	46		1	92	4.7	70-130	20	06/05/2014 0926

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48284-003

Matrix: Aqueous

Batch: 48284

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	94	5.1	70-130	20	06/05/2014 0926
Trichlorofluoromethane	50	51		1	101	8.7	70-130	20	06/05/2014 0926
Vinyl chloride	50	44		1	87	7.6	70-130	20	06/05/2014 0926
Xylenes (total)	100	97		1	97	2.5	70-130	20	06/05/2014 0926
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		92	70-130						
1,2-Dichloroethane-d4		89	70-130						
Toluene-d8		99	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48357-001

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		50	1000	340	ug/kg	06/06/2014 0151
Benzene	ND		50	250	55	ug/kg	06/06/2014 0151
Bromodichloromethane	ND		50	250	85	ug/kg	06/06/2014 0151
Bromoform	ND		50	250	35	ug/kg	06/06/2014 0151
Bromomethane (Methyl bromide)	ND		50	250	90	ug/kg	06/06/2014 0151
2-Butanone (MEK)	ND		50	500	120	ug/kg	06/06/2014 0151
Carbon disulfide	ND		50	250	65	ug/kg	06/06/2014 0151
Carbon tetrachloride	ND		50	250	90	ug/kg	06/06/2014 0151
Chlorobenzene	ND		50	250	85	ug/kg	06/06/2014 0151
Chloroethane	ND		50	250	65	ug/kg	06/06/2014 0151
Chloroform	ND		50	250	42	ug/kg	06/06/2014 0151
Chloromethane (Methyl chloride)	ND		50	250	50	ug/kg	06/06/2014 0151
Cyclohexane	ND		50	250	34	ug/kg	06/06/2014 0151
1,2-Dibromo-3-chloropropane (DBCP)	ND		50	250	75	ug/kg	06/06/2014 0151
Dibromochloromethane	ND		50	250	85	ug/kg	06/06/2014 0151
1,2-Dibromoethane (EDB)	ND		50	250	43	ug/kg	06/06/2014 0151
1,4-Dichlorobenzene	ND		50	250	85	ug/kg	06/06/2014 0151
1,3-Dichlorobenzene	ND		50	250	85	ug/kg	06/06/2014 0151
1,2-Dichlorobenzene	ND		50	250	85	ug/kg	06/06/2014 0151
Dichlorodifluoromethane	ND		50	250	80	ug/kg	06/06/2014 0151
1,2-Dichloroethane	ND		50	250	50	ug/kg	06/06/2014 0151
1,1-Dichloroethane	ND		50	250	37	ug/kg	06/06/2014 0151
trans-1,2-Dichloroethene	ND		50	250	75	ug/kg	06/06/2014 0151
cis-1,2-Dichloroethene	ND		50	250	38	ug/kg	06/06/2014 0151
1,1-Dichloroethene	ND		50	250	85	ug/kg	06/06/2014 0151
1,2-Dichloropropane	ND		50	250	46	ug/kg	06/06/2014 0151
trans-1,3-Dichloropropene	ND		50	250	41	ug/kg	06/06/2014 0151
cis-1,3-Dichloropropene	ND		50	250	34	ug/kg	06/06/2014 0151
Ethylbenzene	ND		50	250	85	ug/kg	06/06/2014 0151
2-Hexanone	ND		50	500	65	ug/kg	06/06/2014 0151
Isopropylbenzene	ND		50	250	12	ug/kg	06/06/2014 0151
Methyl acetate	ND		50	250	49	ug/kg	06/06/2014 0151
Methyl tertiary butyl ether (MTBE)	ND		50	250	20	ug/kg	06/06/2014 0151
4-Methyl-2-pentanone	ND		50	500	75	ug/kg	06/06/2014 0151
Methylcyclohexane	ND		50	250	21	ug/kg	06/06/2014 0151
Methylene chloride	ND		50	250	130	ug/kg	06/06/2014 0151
Styrene	ND		50	250	55	ug/kg	06/06/2014 0151
1,1,2,2-Tetrachloroethane	ND		50	250	24	ug/kg	06/06/2014 0151
Tetrachloroethene	ND		50	250	25	ug/kg	06/06/2014 0151
Toluene	ND		50	250	85	ug/kg	06/06/2014 0151
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		50	250	32	ug/kg	06/06/2014 0151
1,2,4-Trichlorobenzene	ND		50	250	85	ug/kg	06/06/2014 0151
1,1,2-Trichloroethane	ND		50	250	40	ug/kg	06/06/2014 0151
1,1,1-Trichloroethane	ND		50	250	43	ug/kg	06/06/2014 0151

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48357-001

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		50	250	95	ug/kg	06/06/2014 0151
Trichlorofluoromethane	ND		50	250	75	ug/kg	06/06/2014 0151
Vinyl chloride	ND		50	250	43	ug/kg	06/06/2014 0151
Xylenes (total)	ND		50	250	150	ug/kg	06/06/2014 0151
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		100	47-138				
1,2-Dichloroethane-d4		114	53-142				
Toluene-d8		113	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48357-002

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	5000	4500		50	90	60-140	06/06/2014 0041
Benzene	2500	3000		50	120	69-123	06/06/2014 0041
Bromodichloromethane	2500	2800		50	113	69-121	06/06/2014 0041
Bromoform	2500	2700		50	107	61-119	06/06/2014 0041
Bromomethane (Methyl bromide)	2500	2800		50	110	10-168	06/06/2014 0041
2-Butanone (MEK)	5000	4900		50	97	57-148	06/06/2014 0041
Carbon disulfide	2500	2800		50	114	58-122	06/06/2014 0041
Carbon tetrachloride	2500	2900		50	118	58-136	06/06/2014 0041
Chlorobenzene	2500	2900		50	114	59-129	06/06/2014 0041
Chloroethane	2500	3000		50	120	42-163	06/06/2014 0041
Chloroform	2500	2900		50	114	71-125	06/06/2014 0041
Chloromethane (Methyl chloride)	2500	2500		50	98	34-134	06/06/2014 0041
Cyclohexane	2500	3100		50	123	53-139	06/06/2014 0041
1,2-Dibromo-3-chloropropane (DBCP)	2500	2600		50	102	55-125	06/06/2014 0041
Dibromochloromethane	2500	2800		50	112	66-119	06/06/2014 0041
1,2-Dibromoethane (EDB)	2500	2800		50	110	74-124	06/06/2014 0041
1,4-Dichlorobenzene	2500	2700		50	110	52-133	06/06/2014 0041
1,3-Dichlorobenzene	2500	2900		50	116	51-134	06/06/2014 0041
1,2-Dichlorobenzene	2500	2900		50	116	57-131	06/06/2014 0041
Dichlorodifluoromethane	2500	2000		50	79	10-157	06/06/2014 0041
1,2-Dichloroethane	2500	2700		50	109	67-129	06/06/2014 0041
1,1-Dichloroethane	2500	2900		50	116	71-127	06/06/2014 0041
trans-1,2-Dichloroethene	2500	2900		50	118	68-131	06/06/2014 0041
cis-1,2-Dichloroethene	2500	2900		50	116	70-122	06/06/2014 0041
1,1-Dichloroethene	2500	3100		50	123	69-138	06/06/2014 0041
1,2-Dichloropropane	2500	2800		50	112	72-124	06/06/2014 0041
trans-1,3-Dichloropropene	2500	2900		50	117	70-124	06/06/2014 0041
cis-1,3-Dichloropropene	2500	3000		50	118	70-126	06/06/2014 0041
Ethylbenzene	2500	3000		50	120	59-128	06/06/2014 0041
2-Hexanone	5000	5400		50	108	54-137	06/06/2014 0041
Isopropylbenzene	2500	3100		50	124	50-136	06/06/2014 0041
Methyl acetate	2500	2200		50	87	59-137	06/06/2014 0041
Methyl tertiary butyl ether (MTBE)	2500	2900		50	118	70-130	06/06/2014 0041
4-Methyl-2-pentanone	5000	5300		50	107	60-134	06/06/2014 0041
Methylcyclohexane	2500	3200		50	130	41-144	06/06/2014 0041
Methylene chloride	2500	2700		50	108	70-130	06/06/2014 0041
Styrene	2500	3000		50	121	54-136	06/06/2014 0041
1,1,2,2-Tetrachloroethane	2500	2600		50	103	69-132	06/06/2014 0041
Tetrachloroethene	2500	2900		50	117	45-150	06/06/2014 0041
Toluene	2500	3000		50	118	61-129	06/06/2014 0041
1,1,2-Trichloro-1,2,2-Trifluoroethane	2500	3400	N	50	137	49-136	06/06/2014 0041
1,2,4-Trichlorobenzene	2500	3100		50	123	34-145	06/06/2014 0041
1,1,2-Trichloroethane	2500	2600		50	106	55-128	06/06/2014 0041
1,1,1-Trichloroethane	2500	2900		50	117	63-128	06/06/2014 0041

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48357-002

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	2500	3000		50	119	62-126	06/06/2014 0041
Trichlorofluoromethane	2500	3000		50	121	45-138	06/06/2014 0041
Vinyl chloride	2500	2500		50	102	42-132	06/06/2014 0041
Xylenes (total)	5000	6100		50	123	58-128	06/06/2014 0041
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		114	47-138				
1,2-Dichloroethane-d4		118	53-142				
Toluene-d8	N	127	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48357-003

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	5000	5000		50	100	11	60-140	20	06/06/2014 0105
Benzene	2500	2800		50	113	5.3	69-123	20	06/06/2014 0105
Bromodichloromethane	2500	2800		50	110	2.6	69-121	20	06/06/2014 0105
Bromoform	2500	2600		50	104	2.7	61-119	20	06/06/2014 0105
Bromomethane (Methyl bromide)	2500	2600		50	103	6.8	10-168	20	06/06/2014 0105
2-Butanone (MEK)	5000	5400		50	109	11	57-148	20	06/06/2014 0105
Carbon disulfide	2500	2800		50	111	2.3	58-122	20	06/06/2014 0105
Carbon tetrachloride	2500	2900		50	114	2.9	58-136	20	06/06/2014 0105
Chlorobenzene	2500	2800		50	111	2.7	59-129	20	06/06/2014 0105
Chloroethane	2500	2700		50	109	9.9	42-163	20	06/06/2014 0105
Chloroform	2500	2800		50	112	1.7	71-125	20	06/06/2014 0105
Chloromethane (Methyl chloride)	2500	2500		50	100	1.7	34-134	20	06/06/2014 0105
Cyclohexane	2500	3000		50	120	2.2	53-139	20	06/06/2014 0105
1,2-Dibromo-3-chloropropane (DBCP)	2500	2600		50	103	1.0	55-125	20	06/06/2014 0105
Dibromochloromethane	2500	2700		50	107	4.1	66-119	20	06/06/2014 0105
1,2-Dibromoethane (EDB)	2500	2700		50	108	2.2	74-124	20	06/06/2014 0105
1,4-Dichlorobenzene	2500	2600		50	104	5.0	52-133	20	06/06/2014 0105
1,3-Dichlorobenzene	2500	2700		50	109	6.2	51-134	20	06/06/2014 0105
1,2-Dichlorobenzene	2500	2700		50	109	6.7	57-131	20	06/06/2014 0105
Dichlorodifluoromethane	2500	2000		50	81	1.7	10-157	20	06/06/2014 0105
1,2-Dichloroethane	2500	2800		50	111	2.2	67-129	20	06/06/2014 0105
1,1-Dichloroethane	2500	2900		50	114	1.9	71-127	20	06/06/2014 0105
trans-1,2-Dichloroethene	2500	2900		50	117	0.50	68-131	20	06/06/2014 0105
cis-1,2-Dichloroethene	2500	2900		50	116	0.61	70-122	20	06/06/2014 0105
1,1-Dichloroethene	2500	3000		50	120	2.6	69-138	20	06/06/2014 0105
1,2-Dichloropropane	2500	2700		50	110	2.4	72-124	20	06/06/2014 0105
trans-1,3-Dichloropropene	2500	2800		50	114	3.3	70-124	20	06/06/2014 0105
cis-1,3-Dichloropropene	2500	2800		50	114	3.8	70-126	20	06/06/2014 0105
Ethylbenzene	2500	2800		50	113	6.1	59-128	20	06/06/2014 0105
2-Hexanone	5000	5500		50	110	1.9	54-137	20	06/06/2014 0105
Isopropylbenzene	2500	2900		50	118	5.7	50-136	20	06/06/2014 0105
Methyl acetate	2500	2500		50	101	15	59-137	20	06/06/2014 0105
Methyl tertiary butyl ether (MTBE)	2500	3000		50	120	1.7	70-130	20	06/06/2014 0105
4-Methyl-2-pentanone	5000	5500		50	109	2.2	60-134	20	06/06/2014 0105
Methylcyclohexane	2500	3100		50	123	5.7	41-144	20	06/06/2014 0105
Methylene chloride	2500	2700		50	108	0.49	70-130	20	06/06/2014 0105
Styrene	2500	2900		50	116	4.8	54-136	20	06/06/2014 0105
1,1,2,2-Tetrachloroethane	2500	2600		50	103	0.34	69-132	20	06/06/2014 0105
Tetrachloroethene	2500	2700		50	110	6.4	45-150	20	06/06/2014 0105
Toluene	2500	2800		50	113	4.6	61-129	20	06/06/2014 0105
1,1,2-Trichloro-1,2,2-Trifluoroethane	2500	3300		50	131	4.4	49-136	20	06/06/2014 0105
1,2,4-Trichlorobenzene	2500	2900		50	116	6.0	34-145	20	06/06/2014 0105
1,1,2-Trichloroethane	2500	2500		50	101	4.3	55-128	20	06/06/2014 0105
1,1,1-Trichloroethane	2500	2900		50	117	0.00010	63-128	20	06/06/2014 0105

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48357-003

Matrix: Solid

Batch: 48357

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	2500	2800		50	112	6.4	62-126	20	06/06/2014 0105
Trichlorofluoromethane	2500	3000		50	118	1.9	45-138	20	06/06/2014 0105
Vinyl chloride	2500	2500		50	100	1.7	42-132	20	06/06/2014 0105
Xylenes (total)	5000	5800		50	115	6.2	58-128	20	06/06/2014 0105

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	47-138
1,2-Dichloroethane-d4		110	53-142
Toluene-d8		116	68-124

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number 18766

Client 4FCOM Address 3020 Faber Place, St. 300 City Charleston SC 29405 Project Name Shakespeare - Newburg Project Number G0318382.5	Report to Contact Scott Ross Telephone No. / Fax No. / Email (803) 201-9662 Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.	Sampler (Printed Name) Scott Ross / Justin Butler Waybill No. 4 Number of Containers 1 of 2 Bottle (See Instructions on back) Preservative  PF04097	Quote No. 18766
Sample ID / Description (Containers for each sample may be combined on one line) B-40-4 B-40-10 B-40-14 B-41-4 B-41-8 B-41-14 B-42-4 B-42-7 B-42-12 TB060414	Date 6/4/14 1020 1025 1150 1155 1200 1520 1525 1530	Matrix G=Grab C=Composite CW/DW/WW/S Other X Analysis TCE VOCs X X X X X X X X X	Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
Turn Around Time Required (Prior lab approval required for expedited "AT") <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify): 24-48 hrs 1. Relinquished by: <i>[Signature]</i> 2. Relinquished by 3. Relinquished by 4. Relinquished by	Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Discard by Lab Date: 6/4/14 Time: 1024 Date: Time: Date: Time: Date: Time:	QC Requirements (Specify) 1. Received by 2. Received by 3. Received by 4. Laboratory Received by LAB USE ONLY Received on Ice (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> No	Date: 6/4/14 Time: 1024 Date: Time: Date: Time: Date: 6/4/14 Time: 1024 Recept. Temp. 24°C Temp. Blank Y / N / N

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AE Con Cooler Inspected by/date: ea 4/4/14 Lot #: PFO4097

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
2. If custody seals were present, were they intact and unbroken?		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>23 12.4 °C</u> / <u>1</u> / <u>1</u> °C / <u>1</u> / <u>1</u> °C / <u>1</u> / <u>1</u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
4. Is the commercial courier's packing slip attached to this form?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
5. Were proper custody procedures (relinquished/received) followed?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5a Were samples relinquished by client to commercial courier?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
6. Were sample IDs listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
7. Were sample IDs listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
8. Was collection date & time listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
9. Was collection date & time listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
10. Did all container label information (ID, date, time) agree with the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
11. Were tests to be performed listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
12. Did all samples arrive in the proper containers for each test?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
13. Did all containers arrive in good condition (unbroken, lids on, etc.)?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
14. Was adequate sample volume available?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
16. Were any samples containers missing?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
17. Were there any excess samples not listed on COC?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
20. Were all cyanide and/or sulfide samples received at a pH >12?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
22. Were collection temperatures documented on the COC for NC samples?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
24. Was the quote number used taken from the container label? <u>16934</u>		
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ea</u> Verified by: <u>ea</u> Date: <u>6/4/14</u>		

Comments: Read only (i) inside for each soil sample

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF05058**

Date Completed: **06/09/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF05058 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF05058

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF05058

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-43-2	Solid	06/05/2014 1025	06/05/2014
002	B-43-10	Solid	06/05/2014 1043	06/05/2014
003	B-43-14	Solid	06/05/2014 1048	06/05/2014
004	B-44-3	Solid	06/05/2014 1215	06/05/2014
005	B-44-8	Solid	06/05/2014 1225	06/05/2014
006	B-44-14	Solid	06/05/2014 1230	06/05/2014
007	B-45-6	Solid	06/05/2014 1436	06/05/2014
008	B-45-10	Solid	06/05/2014 1440	06/05/2014
009	B-45-12	Solid	06/05/2014 1447	06/05/2014
010	B-45-25	Solid	06/05/2014 1455	06/05/2014
011	TMW-30	Aqueous	06/05/2014 1555	06/05/2014
012	TB060514	Aqueous	06/05/2014 1455	

(12 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF05058

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
004	B-44-3	Solid	Acetone	8260B	16	J	ug/kg	11
005	B-44-8	Solid	Acetone	8260B	55		ug/kg	13
005	B-44-8	Solid	2-Butanone (MEK)	8260B	4.8	J	ug/kg	13
006	B-44-14	Solid	Trichloroethene	8260B	14		ug/kg	16
007	B-45-6	Solid	Acetone	8260B	22		ug/kg	17
008	B-45-10	Solid	Acetone	8260B	40		ug/kg	19
008	B-45-10	Solid	cis-1,2-Dichloroethene	8260B	0.97	J	ug/kg	19
008	B-45-10	Solid	Styrene	8260B	2.0	J	ug/kg	19
009	B-45-12	Solid	Acetone	8260B	24		ug/kg	21
009	B-45-12	Solid	cis-1,2-Dichloroethene	8260B	9.7		ug/kg	21
009	B-45-12	Solid	Trichloroethene	8260B	6.7		ug/kg	22
010	B-45-25	Solid	cis-1,2-Dichloroethene	8260B	39		ug/kg	23
010	B-45-25	Solid	Trichloroethene	8260B	10		ug/kg	24
011	TMW-30	Aqueous	cis-1,2-Dichloroethene	8260B	36	J	ug/L	25
011	TMW-30	Aqueous	Styrene	8260B	31	J	ug/L	25
011	TMW-30	Aqueous	Trichloroethene	8260B	280		ug/L	26

(16 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-001
Description: B-43-2	Matrix: Solid
Date Sampled: 06/05/2014 1025	% Solids: 81.1 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1834	JJG		48444	5.41

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.7	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.7	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.7	0.80	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.7	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.7	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.7	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.7	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.7	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.7	0.95	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.7	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.7	0.77	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.7	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.7	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.7	0.97	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.7	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.7	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.7	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.7	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.7	0.83	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.7	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.7	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.7	0.87	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.7	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.7	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.7	0.78	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.7	0.93	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.7	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.7	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.7	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.7	0.46	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.7	0.47	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.7	3.0	ug/kg	1
Styrene	100-42-5	8260B	ND		5.7	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.7	0.54	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.7	0.57	ug/kg	1
Toluene	108-88-3	8260B	ND		5.7	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.7	0.72	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.7	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.7	0.97	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.7	0.90	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-001
Description: B-43-2	Matrix: Solid
Date Sampled: 06/05/2014 1025	% Solids: 81.1 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1834	JJG		48444	5.41

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.7	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.7	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.7	0.98	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.7	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	53-142
Bromofluorobenzene		91	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-002
Description: B-43-10	Matrix: Solid
Date Sampled: 06/05/2014 1043	% Solids: 78.2 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1858	JJG		48444	5.41

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		24	7.9	ug/kg	1
Benzene	71-43-2	8260B	ND		5.9	1.3	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.9	2.0	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.9	0.83	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.9	2.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		12	2.8	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.9	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.9	2.1	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.9	2.0	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.9	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.9	0.98	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.9	1.2	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.9	0.80	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.9	1.8	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.9	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.9	1.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.9	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.9	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.9	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.9	1.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.9	0.86	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.9	1.2	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.9	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.9	0.90	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.9	1.8	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.9	1.1	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.9	0.80	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.9	0.97	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.9	2.0	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		12	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.9	0.27	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.9	1.2	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.9	0.47	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		12	1.8	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.9	0.48	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.9	3.1	ug/kg	1
Styrene	100-42-5	8260B	ND		5.9	1.3	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.9	0.56	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.9	0.59	ug/kg	1
Toluene	108-88-3	8260B	ND		5.9	2.0	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.9	0.75	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.9	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.9	1.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.9	0.93	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
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 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-002
Description: B-43-10	Matrix: Solid
Date Sampled: 06/05/2014 1043	% Solids: 78.2 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1858	JJG		48444	5.41

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.9	2.2	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.9	1.8	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.9	1.0	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.9	3.4	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	53-142
Bromofluorobenzene		86	47-138
Toluene-d8		94	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-003
Description: B-43-14	Matrix: Solid
Date Sampled: 06/05/2014 1048	% Solids: 81.0 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1922	JJG		48444	5.69

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.3	ug/kg	1
Benzene	71-43-2	8260B	ND		5.4	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.4	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.4	0.76	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.4	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.4	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.4	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.4	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.4	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.4	0.90	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.4	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.4	0.73	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.4	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.4	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.4	0.92	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.4	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.4	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.4	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.4	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.4	0.79	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.4	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.4	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.4	0.82	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.4	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.4	0.99	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.4	0.74	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.4	0.89	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.4	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.4	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.4	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.4	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.4	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.4	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.4	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.4	0.51	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.4	0.54	ug/kg	1
Toluene	108-88-3	8260B	ND		5.4	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.4	0.68	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.4	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.4	0.92	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.4	0.86	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-003
Description: B-43-14	Matrix: Solid
Date Sampled: 06/05/2014 1048	% Solids: 81.0 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1922	JJG		48444	5.69

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.4	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.4	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.4	0.93	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.4	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		97	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-004
Description: B-44-3	Matrix: Solid
Date Sampled: 06/05/2014 1215	% Solids: 84.0 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1946	JJG		48444	5.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	16	J	21	7.1	ug/kg	1
Benzene	71-43-2	8260B	ND		5.3	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.3	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.3	0.74	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.3	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.5	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.3	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.3	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.3	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.3	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.3	0.88	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.3	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.3	0.71	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.3	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.3	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.3	0.90	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.3	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.3	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.3	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.3	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.3	0.77	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.3	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.3	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.3	0.80	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.3	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.3	0.96	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.3	0.72	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.3	0.87	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.3	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.3	0.24	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.3	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.3	0.42	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.3	0.43	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.3	2.7	ug/kg	1
Styrene	100-42-5	8260B	ND		5.3	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.3	0.50	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.3	0.53	ug/kg	1
Toluene	108-88-3	8260B	ND		5.3	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.3	0.67	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.3	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.3	0.90	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.3	0.83	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-004
Description: B-44-3	Matrix: Solid
Date Sampled: 06/05/2014 1215	% Solids: 84.0 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 1946	JJG		48444	5.64

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.3	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.3	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.3	0.91	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.3	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		93	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-005
Description: B-44-8	Matrix: Solid
Date Sampled: 06/05/2014 1225	% Solids: 91.8 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2010	JJG		48444	6.12

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	55		18	6.0	ug/kg	1
Benzene	71-43-2	8260B	ND		4.4	0.98	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.4	1.5	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.4	0.62	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.4	1.6	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	4.8	J	8.9	2.1	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.4	1.2	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.4	1.6	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.4	1.5	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.4	1.2	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.4	0.74	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.4	0.89	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.4	0.60	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.4	1.3	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.4	1.5	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.4	0.76	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.4	1.5	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.4	1.5	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.4	1.5	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.4	1.4	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.4	0.65	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.4	0.89	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.4	1.5	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.4	0.68	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.4	1.3	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.4	0.81	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.4	0.60	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.4	0.73	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.4	1.5	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		8.9	1.2	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.4	0.20	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.4	0.87	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.4	0.36	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		8.9	1.3	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.4	0.36	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.4	2.3	ug/kg	1
Styrene	100-42-5	8260B	ND		4.4	0.98	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.4	0.42	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.4	0.44	ug/kg	1
Toluene	108-88-3	8260B	ND		4.4	1.5	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.4	0.56	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.4	1.5	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.4	0.76	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.4	0.70	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-005
Description: B-44-8	Matrix: Solid
Date Sampled: 06/05/2014 1225	% Solids: 91.8 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2010	JJG		48444	6.12

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.4	1.7	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.4	1.3	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.4	0.76	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.4	2.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-006
Description: B-44-14	Matrix: Solid
Date Sampled: 06/05/2014 1230	% Solids: 79.7 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2035	JJG		48444	5.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		22	7.5	ug/kg	1
Benzene	71-43-2	8260B	ND		5.6	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.6	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.6	0.78	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.6	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.6	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.6	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.6	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.6	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.6	0.93	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.6	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.6	0.75	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.6	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.6	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.6	0.95	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.6	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.6	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.6	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.6	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.6	0.81	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.6	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.6	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.6	0.85	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.6	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.6	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.6	0.76	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.6	0.91	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.6	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.6	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.6	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.6	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.6	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.6	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.6	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.6	0.52	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.6	0.56	ug/kg	1
Toluene	108-88-3	8260B	ND		5.6	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.6	0.70	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.6	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.6	0.95	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.6	0.88	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-006
Description: B-44-14	Matrix: Solid
Date Sampled: 06/05/2014 1230	% Solids: 79.7 06/05/2014 2052
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2035	JJG		48444	5.62

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	14		5.6	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.6	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.6	0.96	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.6	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		96	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-007
Description: B-45-6	Matrix: Solid
Date Sampled: 06/05/2014 1436	% Solids: 86.4 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2059	JJG		48444	5.89

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	22		20	6.6	ug/kg	1
Benzene	71-43-2	8260B	ND		4.9	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		4.9	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		4.9	0.69	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		4.9	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		9.8	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		4.9	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		4.9	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		4.9	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		4.9	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		4.9	0.82	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		4.9	0.98	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		4.9	0.66	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		4.9	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		4.9	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		4.9	0.83	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		4.9	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		4.9	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		4.9	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		4.9	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		4.9	0.72	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		4.9	0.98	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		4.9	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		4.9	0.75	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		4.9	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		4.9	0.89	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		4.9	0.67	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		4.9	0.81	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		4.9	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		9.8	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		4.9	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		4.9	0.96	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		4.9	0.39	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		9.8	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		4.9	0.40	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		4.9	2.6	ug/kg	1
Styrene	100-42-5	8260B	ND		4.9	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		4.9	0.46	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		4.9	0.49	ug/kg	1
Toluene	108-88-3	8260B	ND		4.9	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		4.9	0.62	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		4.9	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		4.9	0.83	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		4.9	0.78	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-007
Description: B-45-6	Matrix: Solid
Date Sampled: 06/05/2014 1436	% Solids: 86.4 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2059	JJG		48444	5.89

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		4.9	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		4.9	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		4.9	0.84	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		4.9	2.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		99	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-008
Description: B-45-10	Matrix: Solid
Date Sampled: 06/05/2014 1440	% Solids: 92.5 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2122	JJG		48444	5.42

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	40		20	6.7	ug/kg	1
Benzene	71-43-2	8260B	ND		5.0	1.1	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.0	0.70	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	1.8	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.4	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.0	1.3	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	1.8	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.0	1.3	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.0	0.83	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	1.0	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.67	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	1.5	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.85	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	1.6	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.73	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	1.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	1.7	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.97	J	5.0	0.76	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	1.5	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.91	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.68	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.82	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		10	1.3	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	0.23	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.98	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	1.5	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.41	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.6	ug/kg	1
Styrene	100-42-5	8260B	2.0	J	5.0	1.1	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.47	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.50	ug/kg	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.63	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.85	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.79	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-008
Description: B-45-10	Matrix: Solid
Date Sampled: 06/05/2014 1440	% Solids: 92.5 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2122	JJG		48444	5.42

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	1.5	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.0	0.86	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		97	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-009
Description: B-45-12	Matrix: Solid
Date Sampled: 06/05/2014 1447	% Solids: 82.1 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2146	JJG		48444	5.69

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	24		21	7.2	ug/kg	1
Benzene	71-43-2	8260B	ND		5.3	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.3	1.8	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.3	0.75	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.3	1.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.6	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.3	1.4	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.3	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.3	1.8	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.3	1.4	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.3	0.89	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.3	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.3	0.72	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.3	1.6	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.3	1.8	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.3	0.91	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.3	1.8	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.3	1.8	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.3	1.8	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.3	1.7	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.3	0.78	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.3	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.3	1.8	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	9.7		5.3	0.81	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.3	1.6	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.3	0.97	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.3	0.73	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.3	0.88	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.3	1.8	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.4	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.3	0.25	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.3	1.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.3	0.43	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.6	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.3	0.44	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.3	2.8	ug/kg	1
Styrene	100-42-5	8260B	ND		5.3	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.3	0.50	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.3	0.53	ug/kg	1
Toluene	108-88-3	8260B	ND		5.3	1.8	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.3	0.67	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.3	1.8	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.3	0.91	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.3	0.85	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-009
Description: B-45-12	Matrix: Solid
Date Sampled: 06/05/2014 1447	% Solids: 82.1 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2146	JJG		48444	5.69

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	6.7		5.3	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.3	1.6	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.3	0.92	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.3	3.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	53-142
Bromofluorobenzene		88	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-010
Description: B-45-25	Matrix: Solid
Date Sampled: 06/05/2014 1455	% Solids: 79.4 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2211	JJG		48444	5.58

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		23	7.6	ug/kg	1
Benzene	71-43-2	8260B	ND		5.6	1.2	ug/kg	1
Bromodichloromethane	75-27-4	8260B	ND		5.6	1.9	ug/kg	1
Bromoform	75-25-2	8260B	ND		5.6	0.79	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.6	2.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260B	ND		11	2.7	ug/kg	1
Carbon disulfide	75-15-0	8260B	ND		5.6	1.5	ug/kg	1
Carbon tetrachloride	56-23-5	8260B	ND		5.6	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260B	ND		5.6	1.9	ug/kg	1
Chloroethane	75-00-3	8260B	ND		5.6	1.5	ug/kg	1
Chloroform	67-66-3	8260B	ND		5.6	0.94	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.6	1.1	ug/kg	1
Cyclohexane	110-82-7	8260B	ND		5.6	0.76	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.6	1.7	ug/kg	1
Dibromochloromethane	124-48-1	8260B	ND		5.6	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.6	0.96	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.6	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.6	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.6	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.6	1.8	ug/kg	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.6	0.82	ug/kg	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.6	1.1	ug/kg	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.6	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260B	39		5.6	0.86	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.6	1.7	ug/kg	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.6	1.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.6	0.77	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.6	0.93	ug/kg	1
Ethylbenzene	100-41-4	8260B	ND		5.6	1.9	ug/kg	1
2-Hexanone	591-78-6	8260B	ND		11	1.5	ug/kg	1
Isopropylbenzene	98-82-8	8260B	ND		5.6	0.26	ug/kg	1
Methyl acetate	79-20-9	8260B	ND		5.6	1.1	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.6	0.45	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		11	1.7	ug/kg	1
Methylcyclohexane	108-87-2	8260B	ND		5.6	0.46	ug/kg	1
Methylene chloride	75-09-2	8260B	ND		5.6	2.9	ug/kg	1
Styrene	100-42-5	8260B	ND		5.6	1.2	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.6	0.53	ug/kg	1
Tetrachloroethene	127-18-4	8260B	ND		5.6	0.56	ug/kg	1
Toluene	108-88-3	8260B	ND		5.6	1.9	ug/kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.6	0.71	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.6	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.6	0.96	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.6	0.89	ug/kg	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-010
Description: B-45-25	Matrix: Solid
Date Sampled: 06/05/2014 1455	% Solids: 79.4 06/06/2014 2206
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260B	1	06/06/2014 2211	JJG		48444	5.58

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	10		5.6	2.1	ug/kg	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.6	1.7	ug/kg	1
Vinyl chloride	75-01-4	8260B	ND		5.6	0.97	ug/kg	1
Xylenes (total)	1330-20-7	8260B	ND		5.6	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	53-142
Bromofluorobenzene		89	47-138
Toluene-d8		95	68-124

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-011
Description: TMW-30	Matrix: Aqueous
Date Sampled: 06/05/2014 1555	
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1310	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	36	J	50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	31	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF05058-011
Description: TMW-30	Matrix: Aqueous
Date Sampled: 06/05/2014 1555	
Date Received: 06/05/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1310	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	280		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48444-002

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/kg	06/06/2014 1759
Benzene	ND		1	5.0	1.1	ug/kg	06/06/2014 1759
Bromodichloromethane	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
Bromoform	ND		1	5.0	0.70	ug/kg	06/06/2014 1759
Bromomethane (Methyl bromide)	ND		1	5.0	1.8	ug/kg	06/06/2014 1759
2-Butanone (MEK)	ND		1	10	2.4	ug/kg	06/06/2014 1759
Carbon disulfide	ND		1	5.0	1.3	ug/kg	06/06/2014 1759
Carbon tetrachloride	ND		1	5.0	1.8	ug/kg	06/06/2014 1759
Chlorobenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
Chloroethane	ND		1	5.0	1.3	ug/kg	06/06/2014 1759
Chloroform	ND		1	5.0	0.83	ug/kg	06/06/2014 1759
Chloromethane (Methyl chloride)	ND		1	5.0	1.0	ug/kg	06/06/2014 1759
Cyclohexane	ND		1	5.0	0.67	ug/kg	06/06/2014 1759
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	1.5	ug/kg	06/06/2014 1759
Dibromochloromethane	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,2-Dibromoethane (EDB)	ND		1	5.0	0.85	ug/kg	06/06/2014 1759
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
Dichlorodifluoromethane	ND		1	5.0	1.6	ug/kg	06/06/2014 1759
1,2-Dichloroethane	ND		1	5.0	1.0	ug/kg	06/06/2014 1759
1,1-Dichloroethane	ND		1	5.0	0.73	ug/kg	06/06/2014 1759
trans-1,2-Dichloroethene	ND		1	5.0	1.5	ug/kg	06/06/2014 1759
cis-1,2-Dichloroethene	ND		1	5.0	0.76	ug/kg	06/06/2014 1759
1,1-Dichloroethene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,2-Dichloropropane	ND		1	5.0	0.91	ug/kg	06/06/2014 1759
trans-1,3-Dichloropropene	ND		1	5.0	0.82	ug/kg	06/06/2014 1759
cis-1,3-Dichloropropene	ND		1	5.0	0.68	ug/kg	06/06/2014 1759
Ethylbenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
2-Hexanone	ND		1	10	1.3	ug/kg	06/06/2014 1759
Isopropylbenzene	ND		1	5.0	0.23	ug/kg	06/06/2014 1759
Methyl acetate	ND		1	5.0	0.98	ug/kg	06/06/2014 1759
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/kg	06/06/2014 1759
4-Methyl-2-pentanone	ND		1	10	1.5	ug/kg	06/06/2014 1759
Methylcyclohexane	ND		1	5.0	0.41	ug/kg	06/06/2014 1759
Methylene chloride	ND		1	5.0	2.6	ug/kg	06/06/2014 1759
Styrene	ND		1	5.0	1.1	ug/kg	06/06/2014 1759
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.47	ug/kg	06/06/2014 1759
Tetrachloroethene	ND		1	5.0	0.50	ug/kg	06/06/2014 1759
Toluene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.63	ug/kg	06/06/2014 1759
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/kg	06/06/2014 1759
1,1,2-Trichloroethane	ND		1	5.0	0.79	ug/kg	06/06/2014 1759
1,1,1-Trichloroethane	ND		1	5.0	0.85	ug/kg	06/06/2014 1759

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48444-002

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	1.9	ug/kg	06/06/2014 1759
Trichlorofluoromethane	ND		1	5.0	1.5	ug/kg	06/06/2014 1759
Vinyl chloride	ND		1	5.0	0.86	ug/kg	06/06/2014 1759
Xylenes (total)	ND		1	5.0	2.9	ug/kg	06/06/2014 1759
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		86	47-138				
1,2-Dichloroethane-d4		99	53-142				
Toluene-d8		96	68-124				
Acetone	79		1	5.0	2.9	ug/kg	06/06/2014 1623
Benzene	43		1	5.0	2.9	ug/kg	06/06/2014 1623
Bromodichloromethane	42		1	5.0	2.9	ug/kg	06/06/2014 1623
Bromoform	42		1	5.0	2.9	ug/kg	06/06/2014 1623
Bromomethane (Methyl bromide)	44		1	5.0	2.9	ug/kg	06/06/2014 1623
2-Butanone (MEK)	85		1	5.0	2.9	ug/kg	06/06/2014 1623
Carbon disulfide	44		1	5.0	2.9	ug/kg	06/06/2014 1623
Carbon tetrachloride	43		1	5.0	2.9	ug/kg	06/06/2014 1623
Chlorobenzene	42		1	5.0	2.9	ug/kg	06/06/2014 1623
Chloroethane	46		1	5.0	2.9	ug/kg	06/06/2014 1623
Chloroform	42		1	5.0	2.9	ug/kg	06/06/2014 1623
Chloromethane (Methyl chloride)	47		1	5.0	2.9	ug/kg	06/06/2014 1623
Cyclohexane	43		1	5.0	2.9	ug/kg	06/06/2014 1623
1,2-Dibromo-3-chloropropane (DBCP)	43		1	5.0	2.9	ug/kg	06/06/2014 1623
Dibromochloromethane	43		1	5.0	2.9	ug/kg	06/06/2014 1623
1,2-Dibromoethane (EDB)	44		1	5.0	2.9	ug/kg	06/06/2014 1623
1,4-Dichlorobenzene	41		1	5.0	2.9	ug/kg	06/06/2014 1623
1,3-Dichlorobenzene	40		1	5.0	2.9	ug/kg	06/06/2014 1623
1,2-Dichlorobenzene	40		1	5.0	2.9	ug/kg	06/06/2014 1623
Dichlorodifluoromethane	45		1	5.0	2.9	ug/kg	06/06/2014 1623
1,2-Dichloroethane	43		1	5.0	2.9	ug/kg	06/06/2014 1623
1,1-Dichloroethane	43		1	5.0	2.9	ug/kg	06/06/2014 1623
trans-1,2-Dichloroethene	44		1	5.0	2.9	ug/kg	06/06/2014 1623
cis-1,2-Dichloroethene	43		1	5.0	2.9	ug/kg	06/06/2014 1623
1,1-Dichloroethene	45		1	5.0	2.9	ug/kg	06/06/2014 1623
1,2-Dichloropropane	41		1	5.0	2.9	ug/kg	06/06/2014 1623
trans-1,3-Dichloropropene	43		1	5.0	2.9	ug/kg	06/06/2014 1623
cis-1,3-Dichloropropene	43		1	5.0	2.9	ug/kg	06/06/2014 1623
Ethylbenzene	42		1	5.0	2.9	ug/kg	06/06/2014 1623
2-Hexanone	91		1	5.0	2.9	ug/kg	06/06/2014 1623
Isopropylbenzene	42		1	5.0	2.9	ug/kg	06/06/2014 1623
Methyl acetate	43		1	5.0	2.9	ug/kg	06/06/2014 1623
Methyl tertiary butyl ether (MTBE)	44		1	5.0	2.9	ug/kg	06/06/2014 1623
4-Methyl-2-pentanone	89		1	5.0	2.9	ug/kg	06/06/2014 1623
Methylcyclohexane	43		1	5.0	2.9	ug/kg	06/06/2014 1623

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48444-002

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methylene chloride	50	43		1	86	70-130	06/06/2014 1623
Styrene	50	41		1	81	54-136	06/06/2014 1623
1,1,2,2-Tetrachloroethane	50	45		1	89	69-132	06/06/2014 1623
Tetrachloroethene	50	43		1	85	45-150	06/06/2014 1623
Toluene	50	42		1	84	61-129	06/06/2014 1623
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	101	49-136	06/06/2014 1623
1,2,4-Trichlorobenzene	50	40		1	80	34-145	06/06/2014 1623
1,1,2-Trichloroethane	50	43		1	86	55-128	06/06/2014 1623
1,1,1-Trichloroethane	50	42		1	85	63-128	06/06/2014 1623
Trichloroethene	50	43		1	85	62-126	06/06/2014 1623
Trichlorofluoromethane	50	45		1	90	45-138	06/06/2014 1623
Vinyl chloride	50	46		1	92	42-132	06/06/2014 1623
Xylenes (total)	100	83		1	83	58-128	06/06/2014 1623
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		84	47-138				
1,2-Dichloroethane-d4		95	53-142				
Toluene-d8		97	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48444-003

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	130	+	1	131	49	60-140	20	06/06/2014 1647
Benzene	50	43		1	85	0.97	69-123	20	06/06/2014 1647
Bromodichloromethane	50	43		1	86	1.5	69-121	20	06/06/2014 1647
Bromoform	50	47		1	94	9.6	61-119	20	06/06/2014 1647
Bromomethane (Methyl bromide)	50	45		1	90	3.3	10-168	20	06/06/2014 1647
2-Butanone (MEK)	100	120	+	1	123	37	57-148	20	06/06/2014 1647
Carbon disulfide	50	45		1	90	2.4	58-122	20	06/06/2014 1647
Carbon tetrachloride	50	43		1	87	1.3	58-136	20	06/06/2014 1647
Chlorobenzene	50	42		1	84	0.24	59-129	20	06/06/2014 1647
Chloroethane	50	46		1	91	0.22	42-163	20	06/06/2014 1647
Chloroform	50	43		1	87	2.2	71-125	20	06/06/2014 1647
Chloromethane (Methyl chloride)	50	46		1	92	1.4	34-134	20	06/06/2014 1647
Cyclohexane	50	42		1	85	1.8	53-139	20	06/06/2014 1647
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	20	55-125	20	06/06/2014 1647
Dibromochloromethane	50	44		1	88	1.8	66-119	20	06/06/2014 1647
1,2-Dibromoethane (EDB)	50	48		1	96	9.0	74-124	20	06/06/2014 1647
1,4-Dichlorobenzene	50	42		1	84	3.7	52-133	20	06/06/2014 1647
1,3-Dichlorobenzene	50	42		1	84	3.8	51-134	20	06/06/2014 1647
1,2-Dichlorobenzene	50	42		1	84	3.7	57-131	20	06/06/2014 1647
Dichlorodifluoromethane	50	44		1	89	1.5	10-157	20	06/06/2014 1647
1,2-Dichloroethane	50	47		1	95	11	67-129	20	06/06/2014 1647
1,1-Dichloroethane	50	44		1	87	1.5	71-127	20	06/06/2014 1647
trans-1,2-Dichloroethene	50	44		1	89	0.64	68-131	20	06/06/2014 1647
cis-1,2-Dichloroethene	50	44		1	88	1.8	70-122	20	06/06/2014 1647
1,1-Dichloroethene	50	43		1	87	4.6	69-138	20	06/06/2014 1647
1,2-Dichloropropane	50	42		1	83	2.0	72-124	20	06/06/2014 1647
trans-1,3-Dichloropropene	50	45		1	90	3.8	70-124	20	06/06/2014 1647
cis-1,3-Dichloropropene	50	45		1	90	4.8	70-126	20	06/06/2014 1647
Ethylbenzene	50	41		1	82	2.2	59-128	20	06/06/2014 1647
2-Hexanone	100	120	+	1	120	27	54-137	20	06/06/2014 1647
Isopropylbenzene	50	41		1	82	3.1	50-136	20	06/06/2014 1647
Methyl acetate	50	60	+	1	121	33	59-137	20	06/06/2014 1647
Methyl tertiary butyl ether (MTBE)	50	48		1	95	8.8	70-130	20	06/06/2014 1647
4-Methyl-2-pentanone	100	110	+	1	114	25	60-134	20	06/06/2014 1647
Methylcyclohexane	50	41		1	82	5.6	41-144	20	06/06/2014 1647
Methylene chloride	50	44		1	89	3.2	70-130	20	06/06/2014 1647
Styrene	50	42		1	84	3.5	54-136	20	06/06/2014 1647
1,1,2,2-Tetrachloroethane	50	50		1	99	11	69-132	20	06/06/2014 1647
Tetrachloroethene	50	41		1	82	4.1	45-150	20	06/06/2014 1647
Toluene	50	42		1	85	1.6	61-129	20	06/06/2014 1647
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	99	1.6	49-136	20	06/06/2014 1647
1,2,4-Trichlorobenzene	50	43		1	86	7.1	34-145	20	06/06/2014 1647
1,1,2-Trichloroethane	50	46		1	91	6.1	55-128	20	06/06/2014 1647
1,1,1-Trichloroethane	50	45		1	91	7.1	63-128	20	06/06/2014 1647

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48444-003

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	42		1	84	1.2	62-126	20	06/06/2014 1647
Trichlorofluoromethane	50	47		1	94	4.9	45-138	20	06/06/2014 1647
Vinyl chloride	50	45		1	91	0.97	42-132	20	06/06/2014 1647
Xylenes (total)	100	82		1	82	1.1	58-128	20	06/06/2014 1647
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		85	47-138						
1,2-Dichloroethane-d4		99	53-142						
Toluene-d8		96	68-124						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PF05058-001DU

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	ND	9.3	+	1	54	20	06/06/2014 2239
Benzene	ND	ND		1	0.00	20	06/06/2014 2239
Bromodichloromethane	ND	ND		1	0.00	20	06/06/2014 2239
Bromoform	ND	ND		1	0.00	20	06/06/2014 2239
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	06/06/2014 2239
2-Butanone (MEK)	ND	ND		1	0.00	20	06/06/2014 2239
Carbon disulfide	ND	ND		1	0.00	20	06/06/2014 2239
Carbon tetrachloride	ND	ND		1	0.00	20	06/06/2014 2239
Chlorobenzene	ND	ND		1	0.00	20	06/06/2014 2239
Chloroethane	ND	ND		1	0.00	20	06/06/2014 2239
Chloroform	ND	ND		1	0.00	20	06/06/2014 2239
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	06/06/2014 2239
Cyclohexane	ND	ND		1	0.00	20	06/06/2014 2239
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	06/06/2014 2239
Dibromochloromethane	ND	ND		1	0.00	20	06/06/2014 2239
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	06/06/2014 2239
1,2-Dichlorobenzene	ND	ND		1	0.00	20	06/06/2014 2239
1,3-Dichlorobenzene	ND	ND		1	0.00	20	06/06/2014 2239
1,4-Dichlorobenzene	ND	ND		1	0.00	20	06/06/2014 2239
Dichlorodifluoromethane	ND	ND		1	0.00	20	06/06/2014 2239
1,1-Dichloroethane	ND	ND		1	0.00	20	06/06/2014 2239
1,2-Dichloroethane	ND	ND		1	0.00	20	06/06/2014 2239
1,1-Dichloroethene	ND	ND		1	0.00	20	06/06/2014 2239
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	06/06/2014 2239
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	06/06/2014 2239
1,2-Dichloropropane	ND	ND		1	0.00	20	06/06/2014 2239
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	06/06/2014 2239
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	06/06/2014 2239
Ethylbenzene	ND	ND		1	0.00	20	06/06/2014 2239
2-Hexanone	ND	ND		1	0.00	20	06/06/2014 2239
Isopropylbenzene	ND	ND		1	0.00	20	06/06/2014 2239
Methyl acetate	ND	ND		1	0.00	20	06/06/2014 2239
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	06/06/2014 2239
4-Methyl-2-pentanone	ND	ND		1	0.00	20	06/06/2014 2239
Methylcyclohexane	ND	ND		1	0.00	20	06/06/2014 2239
Methylene chloride	ND	ND		1	0.00	20	06/06/2014 2239
Styrene	ND	ND		1	0.00	20	06/06/2014 2239
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	06/06/2014 2239
Tetrachloroethene	ND	ND		1	0.00	20	06/06/2014 2239
Toluene	ND	ND		1	0.00	20	06/06/2014 2239
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	06/06/2014 2239
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	06/06/2014 2239
1,1,1-Trichloroethane	ND	ND		1	0.00	20	06/06/2014 2239
1,1,2-Trichloroethane	ND	ND		1	0.00	20	06/06/2014 2239

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: PF05058-001DU

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	06/06/2014 2239
Trichlorofluoromethane	ND	ND		1	0.00	20	06/06/2014 2239
Vinyl chloride	ND	ND		1	0.00	20	06/06/2014 2239
Xylenes (total)	ND	ND		1	0.00	20	06/06/2014 2239
Surrogate	Q	% Rec	Acceptance Limit				
1,2-Dichloroethane-d4		104	53-142				
Bromofluorobenzene		89	47-138				
Toluene-d8		98	68-124				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PF05058-002MS

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	130	96		1	71	60-140	06/06/2014 2303
Benzene	ND	67	51		1	75	69-123	06/06/2014 2303
Bromodichloromethane	ND	67	48		1	71	69-121	06/06/2014 2303
Bromoform	ND	67	47		1	70	61-119	06/06/2014 2303
Bromomethane (Methyl bromide)	ND	67	52		1	77	35-144	06/06/2014 2303
2-Butanone (MEK)	ND	130	99		1	73	57-148	06/06/2014 2303
Carbon disulfide	ND	67	54		1	80	58-122	06/06/2014 2303
Carbon tetrachloride	ND	67	52		1	77	58-136	06/06/2014 2303
Chlorobenzene	ND	67	47		1	69	59-129	06/06/2014 2303
Chloroethane	ND	67	55		1	82	50-132	06/06/2014 2303
Chloroform	ND	67	49		1	73	71-125	06/06/2014 2303
Chloromethane (Methyl chloride)	ND	67	57		1	85	34-134	06/06/2014 2303
Cyclohexane	ND	67	49		1	73	53-139	06/06/2014 2303
1,2-Dibromo-3-chloropropane (DBCP)	ND	67	44		1	66	55-125	06/06/2014 2303
Dibromochloromethane	ND	67	47		1	69	66-119	06/06/2014 2303
1,2-Dibromoethane (EDB)	ND	67	48	N	1	72	74-124	06/06/2014 2303
1,2-Dichlorobenzene	ND	67	42		1	62	57-131	06/06/2014 2303
1,3-Dichlorobenzene	ND	67	42		1	62	51-134	06/06/2014 2303
1,4-Dichlorobenzene	ND	67	42		1	63	52-133	06/06/2014 2303
Dichlorodifluoromethane	ND	67	57		1	84	10-157	06/06/2014 2303
1,1-Dichloroethane	ND	67	51		1	76	71-127	06/06/2014 2303
1,2-Dichloroethane	ND	67	48		1	72	67-129	06/06/2014 2303
1,1-Dichloroethene	ND	67	54		1	81	69-138	06/06/2014 2303
cis-1,2-Dichloroethene	ND	67	50		1	74	70-122	06/06/2014 2303
trans-1,2-Dichloroethene	ND	67	52		1	77	68-131	06/06/2014 2303
1,2-Dichloropropane	ND	67	48	N	1	71	72-124	06/06/2014 2303
cis-1,3-Dichloropropene	ND	67	48		1	72	70-126	06/06/2014 2303
trans-1,3-Dichloropropene	ND	67	47		1	70	70-124	06/06/2014 2303
Ethylbenzene	ND	67	46		1	69	59-128	06/06/2014 2303
2-Hexanone	ND	130	95		1	71	54-137	06/06/2014 2303
Isopropylbenzene	ND	67	44		1	65	50-136	06/06/2014 2303
Methyl acetate	ND	67	51		1	76	59-137	06/06/2014 2303
Methyl tertiary butyl ether (MTBE)	ND	67	47		1	70	70-130	06/06/2014 2303
4-Methyl-2-pentanone	ND	130	98		1	73	60-134	06/06/2014 2303
Methylcyclohexane	ND	67	44		1	66	41-144	06/06/2014 2303
Methylene chloride	ND	67	49	N	1	72	77-129	06/06/2014 2303
Styrene	ND	67	47		1	69	54-136	06/06/2014 2303
1,1,2,2-Tetrachloroethane	ND	67	47		1	69	69-132	06/06/2014 2303
Tetrachloroethene	ND	67	47		1	70	70-130	06/06/2014 2303
Toluene	ND	67	49		1	73	61-129	06/06/2014 2303
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	67	57		1	84	49-136	06/06/2014 2303
1,2,4-Trichlorobenzene	ND	67	39		1	57	34-145	06/06/2014 2303
1,1,1-Trichloroethane	ND	67	52		1	76	63-128	06/06/2014 2303
1,1,2-Trichloroethane	ND	67	47		1	69	55-128	06/06/2014 2303

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PF05058-002MS

Matrix: Solid

Batch: 48444

Prep Method: 5035

Analytical Method: 8260B

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	67	50		1	74	62-126	06/06/2014 2303
Trichlorofluoromethane	ND	67	53		1	79	45-138	06/06/2014 2303
Vinyl chloride	ND	67	58		1	87	42-132	06/06/2014 2303
Xylenes (total)	ND	130	93		1	69	58-128	06/06/2014 2303
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		103	53-142					
Bromofluorobenzene		91	47-138					
Toluene-d8		99	68-124					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48451-001

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/07/2014 1135
Benzene	ND		1	5.0	0.20	ug/L	06/07/2014 1135
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Bromoform	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/07/2014 1135
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/07/2014 1135
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Chloroethane	ND		1	5.0	0.50	ug/L	06/07/2014 1135
Chloroform	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Cyclohexane	ND		1	5.0	0.98	ug/L	06/07/2014 1135
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/07/2014 1135
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/07/2014 1135
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/07/2014 1135
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
2-Hexanone	ND		1	10	1.0	ug/L	06/07/2014 1135
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/07/2014 1135
Methyl acetate	ND		1	5.0	0.72	ug/L	06/07/2014 1135
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/07/2014 1135
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/07/2014 1135
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/07/2014 1135
Methylene chloride	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Styrene	ND		1	5.0	0.10	ug/L	06/07/2014 1135
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Toluene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48451-001

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/07/2014 1135
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		93	70-130				
Toluene-d8		99	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48451-002

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	92		1	92	60-140	06/07/2014 1003
Benzene	50	48		1	96	70-130	06/07/2014 1003
Bromodichloromethane	50	47		1	94	70-130	06/07/2014 1003
Bromoform	50	48		1	95	70-130	06/07/2014 1003
Bromomethane (Methyl bromide)	50	39		1	77	60-140	06/07/2014 1003
2-Butanone (MEK)	100	100		1	102	60-140	06/07/2014 1003
Carbon disulfide	50	49		1	97	60-140	06/07/2014 1003
Carbon tetrachloride	50	49		1	99	70-130	06/07/2014 1003
Chlorobenzene	50	47		1	94	70-130	06/07/2014 1003
Chloroethane	50	42		1	84	42-163	06/07/2014 1003
Chloroform	50	47		1	94	70-130	06/07/2014 1003
Chloromethane (Methyl chloride)	50	45		1	89	60-140	06/07/2014 1003
Cyclohexane	50	45		1	90	70-130	06/07/2014 1003
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	06/07/2014 1003
Dibromochloromethane	50	48		1	96	70-130	06/07/2014 1003
1,2-Dibromoethane (EDB)	50	49		1	97	70-130	06/07/2014 1003
1,4-Dichlorobenzene	50	48		1	97	70-130	06/07/2014 1003
1,3-Dichlorobenzene	50	49		1	99	70-130	06/07/2014 1003
1,2-Dichlorobenzene	50	47		1	95	70-130	06/07/2014 1003
Dichlorodifluoromethane	50	48		1	96	60-140	06/07/2014 1003
1,2-Dichloroethane	50	46		1	93	70-130	06/07/2014 1003
1,1-Dichloroethane	50	45		1	91	70-130	06/07/2014 1003
trans-1,2-Dichloroethene	50	48		1	97	70-130	06/07/2014 1003
cis-1,2-Dichloroethene	50	49		1	97	70-130	06/07/2014 1003
1,1-Dichloroethene	50	50		1	100	70-130	06/07/2014 1003
1,2-Dichloropropane	50	47		1	93	70-130	06/07/2014 1003
trans-1,3-Dichloropropene	50	50		1	99	70-130	06/07/2014 1003
cis-1,3-Dichloropropene	50	50		1	99	70-130	06/07/2014 1003
Ethylbenzene	50	48		1	96	70-130	06/07/2014 1003
2-Hexanone	100	91		1	91	60-140	06/07/2014 1003
Isopropylbenzene	50	52		1	104	70-130	06/07/2014 1003
Methyl acetate	50	41		1	83	70-130	06/07/2014 1003
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	06/07/2014 1003
4-Methyl-2-pentanone	100	89		1	89	60-140	06/07/2014 1003
Methylcyclohexane	50	49		1	99	70-130	06/07/2014 1003
Methylene chloride	50	43		1	86	70-130	06/07/2014 1003
Styrene	50	48		1	95	70-130	06/07/2014 1003
1,1,2,2-Tetrachloroethane	50	49		1	99	70-130	06/07/2014 1003
Tetrachloroethene	50	47		1	93	70-130	06/07/2014 1003
Toluene	50	50		1	100	70-130	06/07/2014 1003
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	112	70-130	06/07/2014 1003
1,2,4-Trichlorobenzene	50	49		1	99	70-130	06/07/2014 1003
1,1,1-Trichloroethane	50	47		1	94	70-130	06/07/2014 1003
1,1,2-Trichloroethane	50	47		1	95	70-130	06/07/2014 1003

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48451-002

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	06/07/2014 1003
Trichlorofluoromethane	50	51		1	103	70-130	06/07/2014 1003
Vinyl chloride	50	44		1	89	70-130	06/07/2014 1003
Xylenes (total)	100	96		1	96	70-130	06/07/2014 1003
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48451-003

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	86		1	86	6.7	60-140	20	06/07/2014 1025
Benzene	50	48		1	96	0.54	70-130	20	06/07/2014 1025
Bromodichloromethane	50	47		1	94	0.093	70-130	20	06/07/2014 1025
Bromoform	50	48		1	95	0.15	70-130	20	06/07/2014 1025
Bromomethane (Methyl bromide)	50	40		1	80	3.8	60-140	20	06/07/2014 1025
2-Butanone (MEK)	100	98		1	98	4.0	60-140	20	06/07/2014 1025
Carbon disulfide	50	48		1	96	0.64	60-140	20	06/07/2014 1025
Carbon tetrachloride	50	50		1	99	0.67	70-130	20	06/07/2014 1025
Chlorobenzene	50	47		1	94	0.32	70-130	20	06/07/2014 1025
Chloroethane	50	42		1	83	1.2	42-163	20	06/07/2014 1025
Chloroform	50	48		1	95	1.5	70-130	20	06/07/2014 1025
Chloromethane (Methyl chloride)	50	44		1	89	0.46	60-140	20	06/07/2014 1025
Cyclohexane	50	43		1	86	4.1	70-130	20	06/07/2014 1025
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	1.5	70-130	20	06/07/2014 1025
Dibromochloromethane	50	48		1	95	0.21	70-130	20	06/07/2014 1025
1,2-Dibromoethane (EDB)	50	48		1	96	1.2	70-130	20	06/07/2014 1025
1,4-Dichlorobenzene	50	47		1	95	2.1	70-130	20	06/07/2014 1025
1,3-Dichlorobenzene	50	48		1	96	2.9	70-130	20	06/07/2014 1025
1,2-Dichlorobenzene	50	47		1	94	0.97	70-130	20	06/07/2014 1025
Dichlorodifluoromethane	50	48		1	96	0.044	60-140	20	06/07/2014 1025
1,2-Dichloroethane	50	47		1	93	0.53	70-130	20	06/07/2014 1025
1,1-Dichloroethane	50	46		1	93	1.8	70-130	20	06/07/2014 1025
trans-1,2-Dichloroethene	50	50		1	100	2.7	70-130	20	06/07/2014 1025
cis-1,2-Dichloroethene	50	49		1	98	0.92	70-130	20	06/07/2014 1025
1,1-Dichloroethene	50	50		1	99	0.28	70-130	20	06/07/2014 1025
1,2-Dichloropropane	50	47		1	93	0.013	70-130	20	06/07/2014 1025
trans-1,3-Dichloropropene	50	48		1	97	2.4	70-130	20	06/07/2014 1025
cis-1,3-Dichloropropene	50	49		1	98	1.1	70-130	20	06/07/2014 1025
Ethylbenzene	50	48		1	96	0.22	70-130	20	06/07/2014 1025
2-Hexanone	100	88		1	88	3.2	60-140	20	06/07/2014 1025
Isopropylbenzene	50	50		1	101	3.0	70-130	20	06/07/2014 1025
Methyl acetate	50	41		1	81	1.9	70-130	20	06/07/2014 1025
Methyl tertiary butyl ether (MTBE)	50	48		1	97	4.0	70-130	20	06/07/2014 1025
4-Methyl-2-pentanone	100	88		1	88	1.3	60-140	20	06/07/2014 1025
Methylcyclohexane	50	50		1	100	0.84	70-130	20	06/07/2014 1025
Methylene chloride	50	45		1	89	3.5	70-130	20	06/07/2014 1025
Styrene	50	47		1	95	0.20	70-130	20	06/07/2014 1025
1,1,2,2-Tetrachloroethane	50	49		1	99	0.047	70-130	20	06/07/2014 1025
Tetrachloroethene	50	46		1	92	1.7	70-130	20	06/07/2014 1025
Toluene	50	49		1	99	0.82	70-130	20	06/07/2014 1025
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	113	0.97	70-130	20	06/07/2014 1025
1,2,4-Trichlorobenzene	50	47		1	94	4.9	70-130	20	06/07/2014 1025
1,1,1-Trichloroethane	50	48		1	95	1.7	70-130	20	06/07/2014 1025
1,1,2-Trichloroethane	50	47		1	94	0.94	70-130	20	06/07/2014 1025

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48451-003

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	48		1	95	0.88	70-130	20	06/07/2014 1025
Trichlorofluoromethane	50	53		1	106	3.1	70-130	20	06/07/2014 1025
Vinyl chloride	50	44		1	89	0.032	70-130	20	06/07/2014 1025
Xylenes (total)	100	96		1	96	0.10	70-130	20	06/07/2014 1025
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		91	70-130						
1,2-Dichloroethane-d4		92	70-130						
Toluene-d8		100	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

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Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Number 18764

Chain of Custody Record

Client AECOM	Report to Contact Scott Ross	Sampler (Printed Name) Scott Ross / Justin B. He	Quote No.
Address 3820 Faber Place, St 300		Waybill No.	
Telephone No. / Fax No. / Email (803) 201-5662		Page 1 of 2	
City Charleston	State SC	Zip Code 29405	Number of Containers
Project Name Shale Gas - Newberry			Boottle (See Instructions on back) Preservative
Project Number 6031382.5			 PF05058

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Analysis	Possible Hazard Identification
			Composites	GW	DW	WW	S		
B-43-2	6/5/14	1005						X	
B-43-10		1043							
B-43-14		1049							
B-44-3		1215							
B-44-8		1225							
B-44-14		1230							
B-45-6		1436							
B-45-10		1440							
B-45-12		1447							
B-45-25		1455							

Turn Around Time Required (Prior lab approval required for expedited TAT) <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) 2-4 hrs	Sample Disposal		QC Requirements (Specify)		Possible Hazard Identification				
	Date	Time	Return to Client	Disposal by Lab	Non-Hazard	Flammable	Skin Irritant	Poison	Unknown
1. Relinquished by Sampler <i>[Signature]</i>	6/5/14	1810							
2. Relinquished by									
3. Relinquished by									
4. Relinquished by									

LAB USE ONLY		Received on: <input checked="" type="checkbox"/> Lab (Check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> No	
1. Received by	Date	Time	Temp. Blank <input type="checkbox"/> Y / <input type="checkbox"/> N
2. Received by	Date	Time	
3. Received by	Date	Time	
4. Laboratory Received by <i>[Signature]</i>	Date 6/5/14	Time 1810	

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Alcon Cooler Inspected by/date: ECC 6/5/14 Lot #: PF05058

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>11311-4</u> °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>SRC</u> , phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC? <u>-011</u>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	16. Were any samples containers missing? <u>TRIP BLANK</u>
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>ECC</u> Date: <u>6/5/14</u>		

Comments: -011 time (SSS) taken fr. vial label

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 www.shealylab.com

Number 18764

Chain of Custody Record

Client AECOM	Report to Contact Scott Ross	Sampler (Printed Name) Scott Ross / Justin Butcher	Quote No.						
Address 3820 Faber Place, St 300	Telephone No. / Fax No. / Email (803) 201-5662	Waybill No.	Page 1 of 2						
City Charleston	State SC	Zip Code 29405	Number of Containers						
Project Name Shakespeare - Newburg	Preservative								
Project Number 6031382-5	1. Unpres 2. NaOH/ZnA 3. H2SO4	4. HNO3 5. HCL	6. Na Tho.						
Sample ID / Description (Contains for each sample may be combined on one line)	Date	Time	Matrix	Analysis	Possible Hazard Identification	CC Requirements (Specify)	Date	Time	
									<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) 24 hrs 1. Relinquished by / Sampler <input checked="" type="checkbox"/> Relinquished by Justin Butcher 2. Relinquished by 3. Relinquished by 4. Relinquished by
B-43-2	6/5/14	1005	G	X			6/5/14	1800	
B-43-10		1043							
B-43-14		1049							
B-44-3		1215							
B-44-8		1225							
B-44-14		1230							
B-45-6		1436							
B-45-10		1440							
B-45-12		1447							
B-45-25		1455							
Turn Around Time Required (Prior lab approval required for expedited TAT):		Sample Disposal		Possible Hazard Identification		CC Requirements (Specify)		Date	
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) 24 hrs		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown		1. Received by		Date	
		Date 6/5/14 Time 1800				2. Received by		Date	
		Date				3. Received by		Date	
		Date				4. Laboratory Responsibility		Date 6/5/14 Time 1800	
		Date				LAB USE ONLY		Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N	
		Date				Faceted on Ice (Check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack		Receipt Temp. 11.4 °C	

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

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 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Atcom Cooler Inspected by/date: ECC 6/5/14 Lot #: PF05058

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>11311-4°C</u> / <u> </u> °C / <u> </u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>#3</u> IR Gun Correction Factor: <u>+0.1°C</u>		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>SRC</u> , phone, note (circle one), other: <u> </u> (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC? <u>-011</u>
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC? <u>-011</u>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	16. Were any samples containers missing? <u>Trip Blank</u>
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) <u> </u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u> </u> (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # <u> </u>		
Sample(s) <u> </u> were received with bubbles >6 mm in diameter.		
Sample(s) <u> </u> were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by <u> </u> Date: <u> </u>		
Sample(s) <u> </u> were not received at a pH of >2 and were adjusted accordingly using SR# <u> </u>		
Sample labels applied by: <u>ECC</u> Verified by: <u>ECC</u> Date: <u>6/5/14</u>		

ECC
6/5/14

Comments:

-011 time (1555) taken fr. vial label
 -011 vials were labeled TMD-30

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF06044**

Date Completed: **06/09/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF06044 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF06044

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF06044

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-32	Aqueous	06/06/2014 1050	06/06/2014
002	TMW-33	Aqueous	06/06/2014 1155	06/06/2014
003	TMW-33 (DUP)	Aqueous	06/06/2014 1155	06/06/2014

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF06044

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-32	Aqueous	cis-1,2-Dichloroethene	8260B	3.2	J	ug/L	5
001	TMW-32	Aqueous	Styrene	8260B	4.3	J	ug/L	5
001	TMW-32	Aqueous	Trichloroethene	8260B	180		ug/L	6
002	TMW-33	Aqueous	Styrene	8260B	5.5	J	ug/L	7
002	TMW-33	Aqueous	Trichloroethene	8260B	800		ug/L	8
003	TMW-33 (DUP)	Aqueous	Styrene	8260B	4.7	J	ug/L	9
003	TMW-33 (DUP)	Aqueous	Trichloroethene	8260B	810		ug/L	10

(7 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF06044-001
Description: TMW-32	Matrix: Aqueous
Date Sampled: 06/06/2014 1050	
Date Received: 06/06/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	06/07/2014 1159	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.2	J	25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	4.3	J	25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF06044-001
Description: TMW-32	Matrix: Aqueous
Date Sampled: 06/06/2014 1050	
Date Received: 06/06/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	06/07/2014 1159	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	180		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PF06044-002**

Description: **TMW-33**

Matrix: **Aqueous**

Date Sampled: **06/06/2014 1155**

Date Received: **06/06/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1222	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	5.5	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF06044-002
Description: TMW-33	Matrix: Aqueous
Date Sampled: 06/06/2014 1155	
Date Received: 06/06/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1222	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	800		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF06044-003
Description: TMW-33 (DUP)	Matrix: Aqueous
Date Sampled: 06/06/2014 1155	
Date Received: 06/06/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1246	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		200	67	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	17	ug/L	1
Bromoform	75-25-2	8260B	ND		50	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	18	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	3.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	17	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		50	17	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	3.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	9.8	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	6.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	17	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	3.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	17	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	17	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	17	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	3.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	3.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	3.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	3.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	7.2	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	8.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	9.5	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	17	ug/L	1
Styrene	100-42-5	8260B	4.7	J	50	1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	3.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	17	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	3.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF06044-003
Description: TMW-33 (DUP)	Matrix: Aqueous
Date Sampled: 06/06/2014 1155	
Date Received: 06/06/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	06/07/2014 1246	DCS		48451

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	810		50	3.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	3.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48451-001

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/07/2014 1135
Benzene	ND		1	5.0	0.20	ug/L	06/07/2014 1135
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Bromoform	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/07/2014 1135
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/07/2014 1135
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Chloroethane	ND		1	5.0	0.50	ug/L	06/07/2014 1135
Chloroform	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Cyclohexane	ND		1	5.0	0.98	ug/L	06/07/2014 1135
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/07/2014 1135
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/07/2014 1135
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/07/2014 1135
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
2-Hexanone	ND		1	10	1.0	ug/L	06/07/2014 1135
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/07/2014 1135
Methyl acetate	ND		1	5.0	0.72	ug/L	06/07/2014 1135
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/07/2014 1135
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/07/2014 1135
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/07/2014 1135
Methylene chloride	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Styrene	ND		1	5.0	0.10	ug/L	06/07/2014 1135
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/07/2014 1135
Toluene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/07/2014 1135
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/07/2014 1135
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48451-001

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/07/2014 1135
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/07/2014 1135
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/07/2014 1135
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		93	70-130				
Toluene-d8		99	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48451-002

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	92		1	92	60-140	06/07/2014 1003
Benzene	50	48		1	96	70-130	06/07/2014 1003
Bromodichloromethane	50	47		1	94	70-130	06/07/2014 1003
Bromoform	50	48		1	95	70-130	06/07/2014 1003
Bromomethane (Methyl bromide)	50	39		1	77	60-140	06/07/2014 1003
2-Butanone (MEK)	100	100		1	102	60-140	06/07/2014 1003
Carbon disulfide	50	49		1	97	60-140	06/07/2014 1003
Carbon tetrachloride	50	49		1	99	70-130	06/07/2014 1003
Chlorobenzene	50	47		1	94	70-130	06/07/2014 1003
Chloroethane	50	42		1	84	42-163	06/07/2014 1003
Chloroform	50	47		1	94	70-130	06/07/2014 1003
Chloromethane (Methyl chloride)	50	45		1	89	60-140	06/07/2014 1003
Cyclohexane	50	45		1	90	70-130	06/07/2014 1003
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	06/07/2014 1003
Dibromochloromethane	50	48		1	96	70-130	06/07/2014 1003
1,2-Dibromoethane (EDB)	50	49		1	97	70-130	06/07/2014 1003
1,4-Dichlorobenzene	50	48		1	97	70-130	06/07/2014 1003
1,3-Dichlorobenzene	50	49		1	99	70-130	06/07/2014 1003
1,2-Dichlorobenzene	50	47		1	95	70-130	06/07/2014 1003
Dichlorodifluoromethane	50	48		1	96	60-140	06/07/2014 1003
1,2-Dichloroethane	50	46		1	93	70-130	06/07/2014 1003
1,1-Dichloroethane	50	45		1	91	70-130	06/07/2014 1003
trans-1,2-Dichloroethene	50	48		1	97	70-130	06/07/2014 1003
cis-1,2-Dichloroethene	50	49		1	97	70-130	06/07/2014 1003
1,1-Dichloroethene	50	50		1	100	70-130	06/07/2014 1003
1,2-Dichloropropane	50	47		1	93	70-130	06/07/2014 1003
trans-1,3-Dichloropropene	50	50		1	99	70-130	06/07/2014 1003
cis-1,3-Dichloropropene	50	50		1	99	70-130	06/07/2014 1003
Ethylbenzene	50	48		1	96	70-130	06/07/2014 1003
2-Hexanone	100	91		1	91	60-140	06/07/2014 1003
Isopropylbenzene	50	52		1	104	70-130	06/07/2014 1003
Methyl acetate	50	41		1	83	70-130	06/07/2014 1003
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	06/07/2014 1003
4-Methyl-2-pentanone	100	89		1	89	60-140	06/07/2014 1003
Methylcyclohexane	50	49		1	99	70-130	06/07/2014 1003
Methylene chloride	50	43		1	86	70-130	06/07/2014 1003
Styrene	50	48		1	95	70-130	06/07/2014 1003
1,1,2,2-Tetrachloroethane	50	49		1	99	70-130	06/07/2014 1003
Tetrachloroethene	50	47		1	93	70-130	06/07/2014 1003
Toluene	50	50		1	100	70-130	06/07/2014 1003
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	112	70-130	06/07/2014 1003
1,2,4-Trichlorobenzene	50	49		1	99	70-130	06/07/2014 1003
1,1,1-Trichloroethane	50	47		1	94	70-130	06/07/2014 1003
1,1,2-Trichloroethane	50	47		1	95	70-130	06/07/2014 1003

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48451-002

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	06/07/2014 1003
Trichlorofluoromethane	50	51		1	103	70-130	06/07/2014 1003
Vinyl chloride	50	44		1	89	70-130	06/07/2014 1003
Xylenes (total)	100	96		1	96	70-130	06/07/2014 1003
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		93	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48451-003

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	86		1	86	6.7	60-140	20	06/07/2014 1025
Benzene	50	48		1	96	0.54	70-130	20	06/07/2014 1025
Bromodichloromethane	50	47		1	94	0.093	70-130	20	06/07/2014 1025
Bromoform	50	48		1	95	0.15	70-130	20	06/07/2014 1025
Bromomethane (Methyl bromide)	50	40		1	80	3.8	60-140	20	06/07/2014 1025
2-Butanone (MEK)	100	98		1	98	4.0	60-140	20	06/07/2014 1025
Carbon disulfide	50	48		1	96	0.64	60-140	20	06/07/2014 1025
Carbon tetrachloride	50	50		1	99	0.67	70-130	20	06/07/2014 1025
Chlorobenzene	50	47		1	94	0.32	70-130	20	06/07/2014 1025
Chloroethane	50	42		1	83	1.2	42-163	20	06/07/2014 1025
Chloroform	50	48		1	95	1.5	70-130	20	06/07/2014 1025
Chloromethane (Methyl chloride)	50	44		1	89	0.46	60-140	20	06/07/2014 1025
Cyclohexane	50	43		1	86	4.1	70-130	20	06/07/2014 1025
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	1.5	70-130	20	06/07/2014 1025
Dibromochloromethane	50	48		1	95	0.21	70-130	20	06/07/2014 1025
1,2-Dibromoethane (EDB)	50	48		1	96	1.2	70-130	20	06/07/2014 1025
1,4-Dichlorobenzene	50	47		1	95	2.1	70-130	20	06/07/2014 1025
1,3-Dichlorobenzene	50	48		1	96	2.9	70-130	20	06/07/2014 1025
1,2-Dichlorobenzene	50	47		1	94	0.97	70-130	20	06/07/2014 1025
Dichlorodifluoromethane	50	48		1	96	0.044	60-140	20	06/07/2014 1025
1,2-Dichloroethane	50	47		1	93	0.53	70-130	20	06/07/2014 1025
1,1-Dichloroethane	50	46		1	93	1.8	70-130	20	06/07/2014 1025
trans-1,2-Dichloroethene	50	50		1	100	2.7	70-130	20	06/07/2014 1025
cis-1,2-Dichloroethene	50	49		1	98	0.92	70-130	20	06/07/2014 1025
1,1-Dichloroethene	50	50		1	99	0.28	70-130	20	06/07/2014 1025
1,2-Dichloropropane	50	47		1	93	0.013	70-130	20	06/07/2014 1025
trans-1,3-Dichloropropene	50	48		1	97	2.4	70-130	20	06/07/2014 1025
cis-1,3-Dichloropropene	50	49		1	98	1.1	70-130	20	06/07/2014 1025
Ethylbenzene	50	48		1	96	0.22	70-130	20	06/07/2014 1025
2-Hexanone	100	88		1	88	3.2	60-140	20	06/07/2014 1025
Isopropylbenzene	50	50		1	101	3.0	70-130	20	06/07/2014 1025
Methyl acetate	50	41		1	81	1.9	70-130	20	06/07/2014 1025
Methyl tertiary butyl ether (MTBE)	50	48		1	97	4.0	70-130	20	06/07/2014 1025
4-Methyl-2-pentanone	100	88		1	88	1.3	60-140	20	06/07/2014 1025
Methylcyclohexane	50	50		1	100	0.84	70-130	20	06/07/2014 1025
Methylene chloride	50	45		1	89	3.5	70-130	20	06/07/2014 1025
Styrene	50	47		1	95	0.20	70-130	20	06/07/2014 1025
1,1,2,2-Tetrachloroethane	50	49		1	99	0.047	70-130	20	06/07/2014 1025
Tetrachloroethene	50	46		1	92	1.7	70-130	20	06/07/2014 1025
Toluene	50	49		1	99	0.82	70-130	20	06/07/2014 1025
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	113	0.97	70-130	20	06/07/2014 1025
1,2,4-Trichlorobenzene	50	47		1	94	4.9	70-130	20	06/07/2014 1025
1,1,1-Trichloroethane	50	48		1	95	1.7	70-130	20	06/07/2014 1025
1,1,2-Trichloroethane	50	47		1	94	0.94	70-130	20	06/07/2014 1025

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48451-003

Matrix: Aqueous

Batch: 48451

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	48		1	95	0.88	70-130	20	06/07/2014 1025
Trichlorofluoromethane	50	53		1	106	3.1	70-130	20	06/07/2014 1025
Vinyl chloride	50	44		1	89	0.032	70-130	20	06/07/2014 1025
Xylenes (total)	100	96		1	96	0.10	70-130	20	06/07/2014 1025
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		91	70-130						
1,2-Dichloroethane-d4		92	70-130						
Toluene-d8		100	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Aecom Cooler Inspected by/date: KWP/6-6-14 Lot #: PF06044

Means of receipt: <input checked="" type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>19423-1/3.2</u> °C / / / / °C / / / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present > "pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label? <u>10934</u>
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>KWP</u> Verified by: _____ Date: <u>6-6-14</u>		

Comments:

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF09029**

Date Completed: **06/10/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF09029 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF09029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF09029

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Boazman Tap	Aqueous	06/09/2014 1236	06/09/2014

(1 sample)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF09029

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	Boazman Tap	Aqueous	Acetone	8260B	16	J	ug/L	5
001	Boazman Tap	Aqueous	2-Butanone (MEK)	8260B	4.6	J	ug/L	5

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF09029-001
Description: Boazman Tap	Matrix: Aqueous
Date Sampled: 06/09/2014 1236	
Date Received: 06/09/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/10/2014 0533	PMM2		48588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	16	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	4.6	J	10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PF09029-001
Description: Boazman Tap	Matrix: Aqueous
Date Sampled: 06/09/2014 1236	
Date Received: 06/09/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/10/2014 0533	PMM2		48588

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48588-001

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	06/09/2014 2154
Benzene	ND		1	5.0	0.20	ug/L	06/09/2014 2154
Bromodichloromethane	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Bromoform	ND		1	5.0	0.40	ug/L	06/09/2014 2154
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	06/09/2014 2154
2-Butanone (MEK)	ND		1	10	1.8	ug/L	06/09/2014 2154
Carbon disulfide	ND		1	5.0	0.30	ug/L	06/09/2014 2154
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	06/09/2014 2154
Chlorobenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Chloroethane	ND		1	5.0	0.50	ug/L	06/09/2014 2154
Chloroform	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	06/09/2014 2154
Cyclohexane	ND		1	5.0	0.98	ug/L	06/09/2014 2154
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	06/09/2014 2154
Dibromochloromethane	ND		1	5.0	1.7	ug/L	06/09/2014 2154
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	06/09/2014 2154
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	06/09/2014 2154
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/09/2014 2154
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	06/09/2014 2154
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	06/09/2014 2154
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	06/09/2014 2154
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	06/09/2014 2154
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	06/09/2014 2154
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/09/2014 2154
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	06/09/2014 2154
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
2-Hexanone	ND		1	10	1.0	ug/L	06/09/2014 2154
Isopropylbenzene	ND		1	5.0	1.0	ug/L	06/09/2014 2154
Methyl acetate	ND		1	5.0	0.72	ug/L	06/09/2014 2154
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/09/2014 2154
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	06/09/2014 2154
Methylcyclohexane	ND		1	5.0	0.95	ug/L	06/09/2014 2154
Methylene chloride	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Styrene	ND		1	5.0	0.10	ug/L	06/09/2014 2154
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	06/09/2014 2154
Tetrachloroethene	ND		1	5.0	0.40	ug/L	06/09/2014 2154
Toluene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	06/09/2014 2154
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	06/09/2014 2154
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	06/09/2014 2154
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	06/09/2014 2154

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ48588-001

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	06/09/2014 2154
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	06/09/2014 2154
Vinyl chloride	ND		1	2.0	0.10	ug/L	06/09/2014 2154
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/09/2014 2154
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		94	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48588-002

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	82		1	82	60-140	06/09/2014 2024
Benzene	50	50		1	100	70-130	06/09/2014 2024
Bromodichloromethane	50	49		1	98	70-130	06/09/2014 2024
Bromoform	50	50		1	101	70-130	06/09/2014 2024
Bromomethane (Methyl bromide)	50	42		1	83	60-140	06/09/2014 2024
2-Butanone (MEK)	100	98		1	98	60-140	06/09/2014 2024
Carbon disulfide	50	50		1	100	60-140	06/09/2014 2024
Carbon tetrachloride	50	50		1	100	70-130	06/09/2014 2024
Chlorobenzene	50	48		1	96	70-130	06/09/2014 2024
Chloroethane	50	44		1	88	42-163	06/09/2014 2024
Chloroform	50	49		1	98	70-130	06/09/2014 2024
Chloromethane (Methyl chloride)	50	48		1	95	60-140	06/09/2014 2024
Cyclohexane	50	46		1	92	70-130	06/09/2014 2024
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	70-130	06/09/2014 2024
Dibromochloromethane	50	50		1	100	70-130	06/09/2014 2024
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	06/09/2014 2024
1,4-Dichlorobenzene	50	49		1	97	70-130	06/09/2014 2024
1,3-Dichlorobenzene	50	49		1	99	70-130	06/09/2014 2024
1,2-Dichlorobenzene	50	48		1	97	70-130	06/09/2014 2024
Dichlorodifluoromethane	50	55		1	109	60-140	06/09/2014 2024
1,2-Dichloroethane	50	48		1	97	70-130	06/09/2014 2024
1,1-Dichloroethane	50	48		1	95	70-130	06/09/2014 2024
trans-1,2-Dichloroethene	50	51		1	103	70-130	06/09/2014 2024
cis-1,2-Dichloroethene	50	50		1	100	70-130	06/09/2014 2024
1,1-Dichloroethene	50	51		1	102	70-130	06/09/2014 2024
1,2-Dichloropropane	50	49		1	97	70-130	06/09/2014 2024
trans-1,3-Dichloropropene	50	51		1	103	70-130	06/09/2014 2024
cis-1,3-Dichloropropene	50	51		1	103	70-130	06/09/2014 2024
Ethylbenzene	50	50		1	99	70-130	06/09/2014 2024
2-Hexanone	100	92		1	92	60-140	06/09/2014 2024
Isopropylbenzene	50	52		1	103	70-130	06/09/2014 2024
Methyl acetate	50	42		1	85	70-130	06/09/2014 2024
Methyl tertiary butyl ether (MTBE)	50	50		1	101	70-130	06/09/2014 2024
4-Methyl-2-pentanone	100	90		1	90	60-140	06/09/2014 2024
Methylcyclohexane	50	51		1	101	70-130	06/09/2014 2024
Methylene chloride	50	45		1	90	70-130	06/09/2014 2024
Styrene	50	49		1	99	70-130	06/09/2014 2024
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	06/09/2014 2024
Tetrachloroethene	50	48		1	96	70-130	06/09/2014 2024
Toluene	50	50		1	101	70-130	06/09/2014 2024
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	118	70-130	06/09/2014 2024
1,2,4-Trichlorobenzene	50	50		1	100	70-130	06/09/2014 2024
1,1,1-Trichloroethane	50	48		1	97	70-130	06/09/2014 2024
1,1,2-Trichloroethane	50	49		1	97	70-130	06/09/2014 2024

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ48588-002

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	06/09/2014 2024
Trichlorofluoromethane	50	57		1	114	70-130	06/09/2014 2024
Vinyl chloride	50	47		1	94	70-130	06/09/2014 2024
Xylenes (total)	100	99		1	99	70-130	06/09/2014 2024
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		92	70-130				
1,2-Dichloroethane-d4		93	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48588-003

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	88		1	88	7.0	60-140	20	06/09/2014 2046
Benzene	50	50		1	100	0.91	70-130	20	06/09/2014 2046
Bromodichloromethane	50	50		1	100	1.8	70-130	20	06/09/2014 2046
Bromoform	50	50		1	99	1.3	70-130	20	06/09/2014 2046
Bromomethane (Methyl bromide)	50	42		1	83	0.50	60-140	20	06/09/2014 2046
2-Butanone (MEK)	100	100		1	101	2.5	60-140	20	06/09/2014 2046
Carbon disulfide	50	50		1	100	0.036	60-140	20	06/09/2014 2046
Carbon tetrachloride	50	52		1	104	3.7	70-130	20	06/09/2014 2046
Chlorobenzene	50	49		1	98	1.5	70-130	20	06/09/2014 2046
Chloroethane	50	46		1	91	3.7	42-163	20	06/09/2014 2046
Chloroform	50	49		1	98	0.25	70-130	20	06/09/2014 2046
Chloromethane (Methyl chloride)	50	48		1	97	1.6	60-140	20	06/09/2014 2046
Cyclohexane	50	48		1	96	4.0	70-130	20	06/09/2014 2046
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	2.7	70-130	20	06/09/2014 2046
Dibromochloromethane	50	50		1	100	0.61	70-130	20	06/09/2014 2046
1,2-Dibromoethane (EDB)	50	50		1	101	0.24	70-130	20	06/09/2014 2046
1,4-Dichlorobenzene	50	49		1	98	0.80	70-130	20	06/09/2014 2046
1,3-Dichlorobenzene	50	50		1	99	0.31	70-130	20	06/09/2014 2046
1,2-Dichlorobenzene	50	49		1	98	0.70	70-130	20	06/09/2014 2046
Dichlorodifluoromethane	50	55		1	110	0.82	60-140	20	06/09/2014 2046
1,2-Dichloroethane	50	49		1	97	0.15	70-130	20	06/09/2014 2046
1,1-Dichloroethane	50	48		1	96	0.83	70-130	20	06/09/2014 2046
trans-1,2-Dichloroethene	50	51		1	103	0.10	70-130	20	06/09/2014 2046
cis-1,2-Dichloroethene	50	51		1	102	1.8	70-130	20	06/09/2014 2046
1,1-Dichloroethene	50	52		1	104	1.5	70-130	20	06/09/2014 2046
1,2-Dichloropropane	50	49		1	97	0.12	70-130	20	06/09/2014 2046
trans-1,3-Dichloropropene	50	52		1	104	1.0	70-130	20	06/09/2014 2046
cis-1,3-Dichloropropene	50	52		1	104	1.0	70-130	20	06/09/2014 2046
Ethylbenzene	50	50		1	100	0.29	70-130	20	06/09/2014 2046
2-Hexanone	100	93		1	93	0.64	60-140	20	06/09/2014 2046
Isopropylbenzene	50	52		1	104	1.0	70-130	20	06/09/2014 2046
Methyl acetate	50	42		1	85	0.18	70-130	20	06/09/2014 2046
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.30	70-130	20	06/09/2014 2046
4-Methyl-2-pentanone	100	92		1	92	1.8	60-140	20	06/09/2014 2046
Methylcyclohexane	50	52		1	103	1.8	70-130	20	06/09/2014 2046
Methylene chloride	50	46		1	91	1.3	70-130	20	06/09/2014 2046
Styrene	50	49		1	99	0.028	70-130	20	06/09/2014 2046
1,1,2,2-Tetrachloroethane	50	49		1	98	0.70	70-130	20	06/09/2014 2046
Tetrachloroethene	50	48		1	96	0.52	70-130	20	06/09/2014 2046
Toluene	50	52		1	104	3.2	70-130	20	06/09/2014 2046
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	60		1	120	1.8	70-130	20	06/09/2014 2046
1,2,4-Trichlorobenzene	50	49		1	98	1.7	70-130	20	06/09/2014 2046
1,1,1-Trichloroethane	50	50		1	100	2.8	70-130	20	06/09/2014 2046
1,1,2-Trichloroethane	50	49		1	99	1.8	70-130	20	06/09/2014 2046

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ48588-003

Matrix: Aqueous

Batch: 48588

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	50		1	101	1.1	70-130	20	06/09/2014 2046
Trichlorofluoromethane	50	58		1	117	2.5	70-130	20	06/09/2014 2046
Vinyl chloride	50	47		1	95	0.63	70-130	20	06/09/2014 2046
Xylenes (total)	100	98		1	98	0.75	70-130	20	06/09/2014 2046
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		93	70-130						
1,2-Dichloroethane-d4		93	70-130						
Toluene-d8		101	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number **18760**



Client HECOM	Report to Contact Scott Moss	Sampler (Printed Name)	Quote No.
Address 3010 Faber Lane St. 300		Waybill No.	Page 1 of 1
City Charleston		Number of Containers	
State SC		Bottle (See Instructions on back)	
Zip Code 29405		Preservative	
Project Name Shakespeare - Newberry		 PF09029	
P.O. Number			
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	
Ammonia Tap	6/9/17	12:36	X
Analysis			
Matrix <input type="checkbox"/> Grab <input type="checkbox"/> Composite <input type="checkbox"/> GW <input type="checkbox"/> DW <input type="checkbox"/> WW <input type="checkbox"/> S <input type="checkbox"/> Other			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown			
Turn Around Time Required (Prior lab approval required for expedited TAT):			
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify)	24 hr	Sample Disposal	
1. Relinquished by / Sampler <i>Scott Moss</i>		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab	
2. Relinquished by Date: 6/9/17 Time: 15:00		1. Received by	Date: Time:
3. Relinquished by		2. Received by	Date: Time:
4. Relinquished by		3. Received by	Date: Time:
		4. Laboratory Received by <i>Scott Moss</i>	Date: 6-9-17 Time: 15:00
Note: All samples are retained for six weeks from receipt unless other arrangements are made.			
LAB USE ONLY		Received on/for (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack	Receipt Temp. 5.3 °C
		Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N	

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: AE Con Cooler Inspected by/date: ECC / 6/9/14 Lot #: PF09029

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
2. If custody seals were present, were they intact and unbroken?		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>15-215-3°C</u> / <u>1</u> °C / / / °C / / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>70.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
4. Is the commercial courier's packing slip attached to this form?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
5. Were proper custody procedures (relinquished/received) followed?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5a Were samples relinquished by client to commercial courier?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
6. Were sample IDs listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
7. Were sample IDs listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
8. Was collection date & time listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
9. Was collection date & time listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
10. Did all container label information (ID, date, time) agree with the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
11. Were tests to be performed listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
12. Did all samples arrive in the proper containers for each test?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
13. Did all containers arrive in good condition (unbroken, lids on, etc.)?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
14. Was adequate sample volume available?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
16. Were any samples containers missing?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
17. Were there any excess samples not listed on COC?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
18. Were bubbles present >"pca-size" (1/4" or 6mm in diameter) in any VOA vials?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
20. Were all cyanide and/or sulfide samples received at a pH >12?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
22. Were collection temperatures documented on the COC for NC samples?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
24. Was the quote number used taken from the container label?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>ECC</u> Verified by: <u>[Signature]</u> Date: <u>6/9/14</u>		

Comments:

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PF11017**

Date Completed: **06/26/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PF11017 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PF11017

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PF11017

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-8	Solid	06/11/2014 0930	06/11/2014
002	MW-1	Solid	06/11/2014 0940	06/11/2014
003	MW-8	Aqueous	06/11/2014 0955	06/11/2014
004	MW-1	Aqueous	06/11/2014 0950	06/11/2014

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PF11017

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-8	Solid	Ignitability (Pensky-Martens Closed-	1010A	>140		° F	5
001	MW-8	Solid	Paint Filter Test	9095B	Pass		pass/fail	5
003	MW-8	Aqueous	Ignitability (Pensky-Martens Closed-	1010A	>140		° F	8
003	MW-8	Aqueous	Trichloroethene	8260B	0.018	J	mg/L	9

(4 detections)

Inorganic non-metals

Client: AECOM	Laboratory ID: PF11017-001
Description: MW-8	Matrix: Solid
Date Sampled: 06/11/2014 0930	% Solids: 78.6 06/11/2014 2134
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Ignitability) 1010A	1	06/16/2014 1448	BWS		49129
1		(Paint Filter) 9095B	1	06/13/2014 0003	TAF	06/10/2014 0003	
1		(pH) 9045D	1	06/13/2014 1625	SDS		49038

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Ignitability (Pensky-Martens Closed-Cup)		1010A	>140		140	0	° F	1
Paint Filter Test		9095B	Pass				pass/fail	1
pH		9045D	4.61				su	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TCLP Volatiles

Client: AECOM	Laboratory ID: PF11017-001
Description: MW-8	Matrix: Solid
Date Sampled: 06/11/2014 0930	% Solids: 78.6 06/11/2014 2134
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Leachate Date
1	1311/5030B	8260B	10	06/26/2014 0940	EH1		49980	06/20/2014 1953

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		0.050	0.0020	mg/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		0.10	0.018	mg/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.050	0.0040	mg/L	1
Chlorobenzene	108-90-7	8260B	ND		0.050	0.0020	mg/L	1
Chloroform	67-66-3	8260B	ND		0.050	0.0030	mg/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.050	0.0030	mg/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.050	0.0050	mg/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.050	0.0040	mg/L	1
Trichloroethene	79-01-6	8260B	ND		0.050	0.0030	mg/L	1
Vinyl chloride	75-01-4	8260B	ND		0.010	0.0010	mg/L	1

Surrogate	Q	Run 1 Acceptance	
		% Recovery	Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		100	70-130

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 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TCLP Volatiles

Client: AECOM	Laboratory ID: PF11017-002
Description: MW-1	Matrix: Solid
Date Sampled: 06/11/2014 0940	% Solids: 77.9 06/16/2014 2023
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Leachate Date
1	1311/5030B	8260B	10	06/26/2014 1003	EH1		49980	06/20/2014 1953

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		0.050	0.0020	mg/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		0.10	0.018	mg/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.050	0.0040	mg/L	1
Chlorobenzene	108-90-7	8260B	ND		0.050	0.0020	mg/L	1
Chloroform	67-66-3	8260B	ND		0.050	0.0030	mg/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.050	0.0030	mg/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.050	0.0050	mg/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.050	0.0040	mg/L	1
Trichloroethene	79-01-6	8260B	ND		0.050	0.0030	mg/L	1
Vinyl chloride	75-01-4	8260B	ND		0.010	0.0010	mg/L	1

Surrogate	Q	Run 1 Acceptance	
		% Recovery	Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: AECOM	Laboratory ID: PF11017-003
Description: MW-8	Matrix: Aqueous
Date Sampled: 06/11/2014 0955	
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Ignitability) 1010A	1	06/16/2014 1448	BWS		49129
1		(pH) SM 4500-H B-2011	1	06/13/2014 1045	AMM1		48947

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Ignitability (Pensky-Martens Closed-Cup)		1010A	>140		140	0	° F	1
pH		SM 4500-H B	6.23				su	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TCLP Volatiles

Client: AECOM	Laboratory ID: PF11017-003
Description: MW-8	Matrix: Aqueous
Date Sampled: 06/11/2014 0955	
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Leachate Date
1	1311/5030B	8260B	10	06/21/2014 1918	JHD		49544	06/20/2014 2330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		0.050	0.0020	mg/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		0.10	0.018	mg/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.050	0.0040	mg/L	1
Chlorobenzene	108-90-7	8260B	ND		0.050	0.0020	mg/L	1
Chloroform	67-66-3	8260B	ND		0.050	0.0030	mg/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.050	0.0030	mg/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.050	0.0050	mg/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.050	0.0040	mg/L	1
Trichloroethene	79-01-6	8260B	0.018	J	0.050	0.0030	mg/L	1
Vinyl chloride	75-01-4	8260B	ND		0.010	0.0010	mg/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TCLP Volatiles

Client: AECOM	Laboratory ID: PF11017-004
Description: MW-1	Matrix: Aqueous
Date Sampled: 06/11/2014 0950	
Date Received: 06/11/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Leachate Date
1	1311/5030B	8260B	10	06/21/2014 1941	JHD		49544	06/20/2014 2330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		0.050	0.0020	mg/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		0.10	0.018	mg/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.050	0.0040	mg/L	1
Chlorobenzene	108-90-7	8260B	ND		0.050	0.0020	mg/L	1
Chloroform	67-66-3	8260B	ND		0.050	0.0030	mg/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.050	0.0030	mg/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.050	0.0050	mg/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.050	0.0040	mg/L	1
Trichloroethene	79-01-6	8260B	ND		0.050	0.0030	mg/L	1
Vinyl chloride	75-01-4	8260B	ND		0.010	0.0010	mg/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Inorganic non-metals - MB

Sample ID: PQ48947-001

Matrix: Aqueous

Batch: 48947

Analytical Method: SM 4500-H B-2011

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
pH	6.69		1	0.000	0.000	su	06/13/2014 1045

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: PQ49038-001

Matrix: Solid

Batch: 49038

Analytical Method: 9045D

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
pH	6.5		1	0.000	0.000	su	06/13/2014 1625

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Volatiles - MB

Sample ID: PQ49544-001

Matrix: Aqueous

Batch: 49544

Prep Method: 1311/5030B

Analytical Method: 8260B

Leachate Date: 06/20/2014 2330

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		10	0.050	0.0020	mg/L	06/21/2014 1220
2-Butanone (MEK)	ND		10	0.10	0.018	mg/L	06/21/2014 1220
Carbon tetrachloride	ND		10	0.050	0.0040	mg/L	06/21/2014 1220
Chlorobenzene	ND		10	0.050	0.0020	mg/L	06/21/2014 1220
Chloroform	ND		10	0.050	0.0030	mg/L	06/21/2014 1220
1,2-Dichloroethane	ND		10	0.050	0.0030	mg/L	06/21/2014 1220
1,1-Dichloroethene	ND		10	0.050	0.0050	mg/L	06/21/2014 1220
Tetrachloroethene	ND		10	0.050	0.0040	mg/L	06/21/2014 1220
Trichloroethene	ND		10	0.050	0.0030	mg/L	06/21/2014 1220
Vinyl chloride	ND		10	0.010	0.0010	mg/L	06/21/2014 1220

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Volatiles - LCS

Sample ID: PQ49544-002

Matrix: Aqueous

Batch: 49544

Prep Method: 1311/5030B

Analytical Method: 8260B

Leachate Date: 06/20/2014 2330

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	0.50	0.44		10	89	72-127	06/21/2014 1047
2-Butanone (MEK)	1.0	0.87		10	87	60-140	06/21/2014 1047
Carbon tetrachloride	0.50	0.46		10	92	37-166	06/21/2014 1047
Chlorobenzene	0.50	0.46		10	92	78-129	06/21/2014 1047
Chloroform	0.50	0.45		10	90	63-123	06/21/2014 1047
1,2-Dichloroethane	0.50	0.46		10	93	59-143	06/21/2014 1047
1,1-Dichloroethene	0.50	0.46		10	92	50-132	06/21/2014 1047
Tetrachloroethene	0.50	0.49		10	98	70-130	06/21/2014 1047
Trichloroethene	0.50	0.47		10	93	73-124	06/21/2014 1047
Vinyl chloride	0.50	0.40		10	80	29-159	06/21/2014 1047
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		86	70-130				
1,2-Dichloroethane-d4		84	70-130				
Toluene-d8		89	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Volatiles - LCSD

Sample ID: PQ49544-003

Matrix: Aqueous

Batch: 49544

Prep Method: 1311/5030B

Analytical Method: 8260B

Leachate Date: 06/20/2014 2330

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	0.50	0.48		10	95	7.0	72-127	20	06/21/2014 1110
2-Butanone (MEK)	1.0	0.85		10	85	2.5	60-140	20	06/21/2014 1110
Carbon tetrachloride	0.50	0.49		10	97	5.5	37-166	20	06/21/2014 1110
Chlorobenzene	0.50	0.48		10	96	3.6	78-129	20	06/21/2014 1110
Chloroform	0.50	0.47		10	93	3.1	63-123	20	06/21/2014 1110
1,2-Dichloroethane	0.50	0.46		10	92	0.87	59-143	20	06/21/2014 1110
1,1-Dichloroethene	0.50	0.49		10	98	6.1	50-132	20	06/21/2014 1110
Tetrachloroethene	0.50	0.54		10	107	8.4	70-130	20	06/21/2014 1110
Trichloroethene	0.50	0.50		10	99	6.2	73-124	20	06/21/2014 1110
Vinyl chloride	0.50	0.43		10	86	7.0	29-159	20	06/21/2014 1110
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		87	70-130						
1,2-Dichloroethane-d4		85	70-130						
Toluene-d8		92	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Volatiles - MB

Sample ID: PQ49980-001

Matrix: Solid

Batch: 49980

Prep Method: 1311/5030B

Analytical Method: 8260B

Leachate Date: 06/20/2014 1953

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		10	0.050	0.0020	mg/L	06/26/2014 0853
2-Butanone (MEK)	ND		10	0.10	0.018	mg/L	06/26/2014 0853
Carbon tetrachloride	ND		10	0.050	0.0040	mg/L	06/26/2014 0853
Chlorobenzene	ND		10	0.050	0.0020	mg/L	06/26/2014 0853
Chloroform	ND		10	0.050	0.0030	mg/L	06/26/2014 0853
1,2-Dichloroethane	ND		10	0.050	0.0030	mg/L	06/26/2014 0853
1,1-Dichloroethene	ND		10	0.050	0.0050	mg/L	06/26/2014 0853
Tetrachloroethene	ND		10	0.050	0.0040	mg/L	06/26/2014 0853
Trichloroethene	ND		10	0.050	0.0030	mg/L	06/26/2014 0853
Vinyl chloride	ND		10	0.010	0.0010	mg/L	06/26/2014 0853

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Volatiles - LCS

Sample ID: PQ49980-002

Matrix: Solid

Batch: 49980

Prep Method: 1311/5030B

Analytical Method: 8260B

Leachate Date: 06/20/2014 1953

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	0.50	0.50		10	100	72-127	06/26/2014 0916
2-Butanone (MEK)	1.0	0.92		10	92	60-140	06/26/2014 0916
Carbon tetrachloride	0.50	0.53		10	106	37-166	06/26/2014 0916
Chlorobenzene	0.50	0.50		10	101	78-129	06/26/2014 0916
Chloroform	0.50	0.52		10	103	63-123	06/26/2014 0916
1,2-Dichloroethane	0.50	0.50		10	100	59-143	06/26/2014 0916
1,1-Dichloroethene	0.50	0.51		10	102	50-132	06/26/2014 0916
Tetrachloroethene	0.50	0.52		10	103	70-130	06/26/2014 0916
Trichloroethene	0.50	0.51		10	101	73-124	06/26/2014 0916
Vinyl chloride	0.50	0.50		10	100	29-159	06/26/2014 0916
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		100	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 14

Page 1 of 1
 Replaces Date: 09/26/13
 Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: Aecom Cooler Inspected by/date: KWP 10-11-14 Lot #: PE11017

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		1. Were custody seals present on the cooler?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>126.2126-3</u> °C / / °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None		
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>(SRC)</u> , phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		16. Were any samples containers missing?
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>		23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/> No <input type="checkbox"/>		24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L. (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>KWP</u> Verified by: _____ Date: <u>10-11-14</u>		

Comments:



Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

June 6, 2014

Scott Ross
AECOM
810 Dutch Square Blvd.
Suite 202
Columbia, SC 29210

RE: **SHAKESPEARE / 60318382.5**

Microseeps Workorder: 12254

Dear Scott Ross:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, May 23, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robbin Robl
rrobl@microseeps.com

06/06/2014

RW
6-10-14

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.

Please email info@microseeps.com.

Total Number of Pages 20

Report ID: 12254 - 529719

Page 1 of 18



CERTIFICATE OF ANALYSIS

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories	
Accreditation ID:	02-00538	
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste	
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories	
Accreditation ID:	E87832	
Scope:	Clean Water Act (CWA)	Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification	
Accreditation ID:	89009003	
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)	
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality	
Accreditation ID:	04104	
Scope:	Solid and Chemical Materials; Non-Potable Water	
Accreditor:	NELAP: New Jersey, Department of Environmental Protection	
Accreditation ID:	PA026	
Scope:	Non-Potable Water; Solid and Chemical Materials	
Accreditor:	NELAP: New York, Department of Health Wadsworth Center	
Accreditation ID:	11815	
Scope:	Non-Potable Water; Solid and Hazardous Waste	
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health	
Accreditation ID:	PH-0263	
Scope:	Clean Water Act (CWA)	Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality	
Accreditation ID:	T104704453-09-TX	
Scope:	Non-Potable Water	
Accreditor:	State of New Hampshire	
Accreditation ID:	299409	
Scope:	Non-potable water	
Accreditor:	State of Georgia	
Accreditation ID:	Chapter 391-3-26	
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).	



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SAMPLE SUMMARY

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID	Sample ID	Matrix	Date Collected	Date Received
122540001	MW-1	Water	5/22/2014 11:18	5/23/2014 11:45
122540002	MW-7	Water	5/22/2014 13:24	5/23/2014 11:45
122540003	MW-6	Water	5/22/2014 15:35	5/23/2014 11:45
122540004	MW-8	Water	5/22/2014 15:25	5/23/2014 11:45
122540005	MW-1	Bubble Strip	5/22/2014 11:18	5/23/2014 11:45
122540006	MW-7	Bubble Strip	5/22/2014 13:24	5/23/2014 11:45
122540007	MW-6	Bubble Strip	5/22/2014 15:35	5/23/2014 11:45
122540008	MW-8	Bubble Strip	5/22/2014 15:25	5/23/2014 11:45



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: **122540001** Date Received: 5/23/2014 11:45 Matrix: Water
 Sample ID: **MW-1** Date Collected: 5/22/2014 11:18

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
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EDonors - MICR

Analysis Desc: AM23G	Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.012	1			5/28/2014 18:04	KB	
Acetic Acid	0.047J	mg/l	0.070	0.0080	1			5/28/2014 18:04	KB	
Propionic Acid	0.025J	mg/l	0.050	0.011	1			5/28/2014 18:04	KB	
Formic Acid	0.12	mg/l	0.10	0.0070	1			5/28/2014 18:04	KB	
Butyric Acid	0.044J	mg/l	0.050	0.0070	1			5/28/2014 18:04	KB	
Pyruvic Acid	0.15 U	mg/l	0.15	0.0090	1			5/28/2014 18:04	KB	
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.0080	1			5/28/2014 18:04	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.014	1			5/28/2014 18:04	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.10	1			5/28/2014 18:04	KB	
Hexanoic Acid	0.50 U	mg/l	0.50	0.12	1			5/28/2014 18:04	KB	

RISK - MICR

Analysis Desc: AM20GAX	Analytical Method: AM20GAX									
Methane	0.49	ug/l	0.10	0.042	1			6/3/2014 09:21	GT	
Ethane	0.25	ug/l	0.025	0.0020	1			6/3/2014 09:21	GT	
Ethene	0.092	ug/l	0.025	0.0030	1			6/3/2014 09:21	GT	
Propane	0.27	ug/l	0.050	0.0020	1			6/3/2014 09:21	GT	
Propene	0.039J	ug/l	0.050	0.010	1			6/3/2014 09:21	GT	
iso-Butane	0.048J	ug/l	0.050	0.0060	1			6/3/2014 09:21	GT	
n-Butane	0.095	ug/l	0.050	0.0080	1			6/3/2014 09:21	GT	
Acetylene	0.50 U	ug/l	0.50	0.015	1			6/3/2014 09:21	GT	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: **122540002** Date Received: 5/23/2014 11:45 Matrix: Water
 Sample ID: **MW-7** Date Collected: 5/22/2014 13:24

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	0.10 U	mg/l	0.10	0.012	1			5/28/2014 20:22	KB	
Acetic Acid	0.0094J	mg/l	0.070	0.0080	1			5/28/2014 20:22	KB	
Propionic Acid	0.020J	mg/l	0.050	0.011	1			5/28/2014 20:22	KB	
Formic Acid	0.095J	mg/l	0.10	0.0070	1			5/28/2014 20:22	KB	
Butyric Acid	0.031J	mg/l	0.050	0.0070	1			5/28/2014 20:22	KB	
Pyruvic Acid	0.050J	mg/l	0.15	0.0090	1			5/28/2014 20:22	KB	
i-Pentanoic Acid	0.065J	mg/l	0.15	0.0080	1			5/28/2014 20:22	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.014	1			5/28/2014 20:22	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.10	1			5/28/2014 20:22	KB	
Hexanoic Acid	0.50 U	mg/l	0.50	0.12	1			5/28/2014 20:22	KB	

RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	79	ug/l	0.10	0.042	1			6/3/2014 09:34	GT	
Ethane	0.012J	ug/l	0.025	0.0020	1			6/3/2014 09:34	GT	
Ethene	0.0075J	ug/l	0.025	0.0030	1			6/3/2014 09:34	GT	
Propane	0.12	ug/l	0.050	0.0020	1			6/3/2014 09:34	GT	
Propene	0.050 U	ug/l	0.050	0.010	1			6/3/2014 09:34	GT	
iso-Butane	0.050 U	ug/l	0.050	0.0060	1			6/3/2014 09:34	GT	
n-Butane	0.050 U	ug/l	0.050	0.0080	1			6/3/2014 09:34	GT	
Acetylene	0.50 U	ug/l	0.50	0.015	1			6/3/2014 09:34	GT	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540003
 Sample ID: MW-6

Date Received: 5/23/2014 11:45 Matrix: Water
 Date Collected: 5/22/2014 15:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G Analytical Method: AM23G										
Lactic Acid	0.028J	mg/l	0.10	0.012	1			5/28/2014 21:08	KB	
Acetic Acid	0.052J	mg/l	0.070	0.0080	1			5/28/2014 21:08	KB	
Propionic Acid	0.039J	mg/l	0.050	0.011	1			5/28/2014 21:08	KB	
Formic Acid	0.12	mg/l	0.10	0.0070	1			5/28/2014 21:08	KB	
Butyric Acid	0.033J	mg/l	0.050	0.0070	1			5/28/2014 21:08	KB	
Pyruvic Acid	0.15 U	mg/l	0.15	0.0090	1			5/28/2014 21:08	KB	
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.0080	1			5/28/2014 21:08	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.014	1			5/28/2014 21:08	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.10	1			5/28/2014 21:08	KB	
Hexanoic Acid	0.50 U	mg/l	0.50	0.12	1			5/28/2014 21:08	KB	

RISK - MICR										
Analysis Desc: AM20GAX Analytical Method: AM20GAX										
Methane	400	ug/l	0.10	0.042	1			6/3/2014 09:46	GT	
Ethane	0.18	ug/l	0.025	0.0020	1			6/3/2014 09:46	GT	
Ethene	0.50	ug/l	0.025	0.0030	1			6/3/2014 09:46	GT	
Propane	0.11	ug/l	0.050	0.0020	1			6/3/2014 09:46	GT	
Propene	0.22	ug/l	0.050	0.010	1			6/3/2014 09:46	GT	
iso-Butane	0.017J	ug/l	0.050	0.0060	1			6/3/2014 09:46	GT	
n-Butane	0.026J	ug/l	0.050	0.0080	1			6/3/2014 09:46	GT	
Acetylene	0.50 U	ug/l	0.50	0.015	1			6/3/2014 09:46	GT	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540004

Date Received: 5/23/2014 11:45 Matrix: Water

Sample ID: MW-8

Date Collected: 5/22/2014 15:25

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	----	----------	----	----------	----	------

EDonors - MICR

Analysis Desc: AM23G

Analytical Method: AM23G

Lactic Acid	0.10 U	mg/l	0.10	0.012	1			5/28/2014 21:54	KB	
Acetic Acid	0.028J	mg/l	0.070	0.0080	1			5/28/2014 21:54	KB	
Propionic Acid	0.022J	mg/l	0.050	0.011	1			5/28/2014 21:54	KB	
Formic Acid	0.078J	mg/l	0.10	0.0070	1			5/28/2014 21:54	KB	
Butyric Acid	0.034J	mg/l	0.050	0.0070	1			5/28/2014 21:54	KB	
Pyruvic Acid	0.15 U	mg/l	0.15	0.0090	1			5/28/2014 21:54	KB	
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.0080	1			5/28/2014 21:54	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.014	1			5/28/2014 21:54	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.10	1			5/28/2014 21:54	KB	
Hexanoic Acid	0.50 U	mg/l	0.50	0.12	1			5/28/2014 21:54	KB	

RISK - MICR

Analysis Desc: AM20GAX

Analytical Method: AM20GAX

Methane	150	ug/l	0.10	0.042	1			6/3/2014 09:59	GT	
Ethane	0.041	ug/l	0.025	0.0020	1			6/3/2014 09:59	GT	
Ethene	0.039	ug/l	0.025	0.0030	1			6/3/2014 09:59	GT	
Propane	0.026J	ug/l	0.050	0.0020	1			6/3/2014 09:59	GT	
Propene	0.048J	ug/l	0.050	0.010	1			6/3/2014 09:59	GT	
iso-Butane	0.050 U	ug/l	0.050	0.0060	1			6/3/2014 09:59	GT	
n-Butane	0.019J	ug/l	0.050	0.0080	1			6/3/2014 09:59	GT	
Acetylene	0.50 U	ug/l	0.50	0.015	1			6/3/2014 09:59	GT	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540005 Date Received: 5/23/2014 11:45 Matrix: Bubble Strip
 Sample ID: MW-1 Date Collected: 5/22/2014 11:18

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Hydrogen	1.0	nM	0.60	0.13	1			6/1/2014 13:17	GT	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540006 Date Received: 5/23/2014 11:45 Matrix: Bubble Strip
 Sample ID: MW-7 Date Collected: 5/22/2014 13:24

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Hydrogen	11	nM	0.60	0.13	1			6/5/2014 11:35	MM	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540007 Date Received: 5/23/2014 11:45 Matrix: Bubble Strip
 Sample ID: MW-6 Date Collected: 5/22/2014 15:35

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Hydrogen	9.2	nM	0.60	0.13	1			6/5/2014 11:47	MM	



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ANALYTICAL RESULTS

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID: 122540008
 Sample ID: MW-8

Date Received: 5/23/2014 11:45 Matrix: Bubble Strip
 Date Collected: 5/22/2014 15:25

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Hydrogen	6.9	nM	0.60	0.13	1			6/5/2014 12:05	MM	



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 12254 SHAKESPEARE / 60318382.5

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20Gax, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.

PQL Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.

ND Not detected at or above reporting limit.

DF Dilution Factor.

S Surrogate.

RPD Relative Percent Difference.

% Rec Percent Recovery.

U Indicates the compound was analyzed for, but not detected at or above the noted concentration.

J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).



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QUALITY CONTROL DATA

Workorder: 12254 SHAKESPEARE / 60318382.5

QC Batch: EDON/2140 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 122540001, 122540002, 122540003, 122540004

METHOD BLANK: 28021

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.10 U	0.10	
Acetic Acid	mg/l	0.070 U	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Formic Acid	mg/l	0.051J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
i-Hexanoic Acid	mg/l	0.20 U	0.20	
Hexanoic Acid	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE: 28022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	95	70-130	
Acetic Acid	mg/l	2	1.9	95	70-130	
Propionic Acid	mg/l	2	1.9	94	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	
Butyric Acid	mg/l	2	2.0	98	70-130	
Pyruvic Acid	mg/l	2	1.9	95	70-130	
i-Pentanoic Acid	mg/l	2	1.9	93	70-130	
Pentanoic Acid	mg/l	2	1.8	89	70-130	
i-Hexanoic Acid	mg/l	2	2.2	109	70-130	
Hexanoic Acid	mg/l	2	1.9	93	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 28023 28024 Original: 122540001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0.011	2	1.8	1.8	90	90	70-130	0	30	



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QUALITY CONTROL DATA

Workorder: 12254 SHAKESPEARE / 60318382.5

QC Batch: DISG/3817 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 122540001, 122540002, 122540003, 122540004

METHOD BLANK: 28141

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	
Propane	ug/l	0.050 U	0.050	
Propene	ug/l	0.050 U	0.050	
iso-Butane	ug/l	0.050 U	0.050	
n-Butane	ug/l	0.050 U	0.050	
Acetylene	ug/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 28143 28145

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	770	97	103	80-120	6	20	
Ethane	ug/l	38	44	43	115	114	80-120	0.87	20	
Ethene	ug/l	35	40	40	115	114	80-120	0.87	20	
Propane	ug/l	56	62	61	111	110	80-120	0.9	20	
Propene	ug/l	53	52	52	99	98	80-120	1	20	
iso-Butane	ug/l	73	79	78	108	106	80-120	1.9	20	
n-Butane	ug/l	73	75	73	103	100	80-120	3	20	
Acetylene	ug/l	33	31	30	94	92	80-120	2.2	20	



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QUALITY CONTROL DATA

Workorder: 12254 SHAKESPEARE / 60318382.5

QC Batch: DISG/3824 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 122540006, 122540007, 122540008

METHOD BLANK: 28213

Parameter	Units	Blank Result	Reporting Limit Qualifiers
RISK Hydrogen	nM	0.60 U	0.60

LABORATORY CONTROL SAMPLE & LCSD: 28214 28215

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
RISK Hydrogen	nM	12	11	11	93	94	80-120	1.1	20



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 12254 SHAKESPEARE / 60318382.5

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
122540001	MW-1			AM23G	EDON/2140
122540002	MW-7			AM23G	EDON/2140
122540003	MW-6			AM23G	EDON/2140
122540004	MW-8			AM23G	EDON/2140
122540005	MW-1			AM20GAX	DISG/3813
122540001	MW-1			AM20GAX	DISG/3817
122540002	MW-7			AM20GAX	DISG/3817
122540003	MW-6			AM20GAX	DISG/3817
122540004	MW-8			AM20GAX	DISG/3817
122540006	MW-7			AM20GAX	DISG/3824
122540007	MW-6			AM20GAX	DISG/3824
122540008	MW-8			AM20GAX	DISG/3824



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CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

12254

Page: 1 of 1
000639

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>Arcem</u>	Report To: <u>Scott Ross</u>	Attention:	Company Name:	Address:	REGULATORY AGENCY
Address: <u>300 N. Glendale St</u>	Copy To:			Address:	<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER
Email To: <u>Scott.Ross@Arcem.com</u>	Purchase Order No.:			Phone Quote Reference:	<input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER
Phone: <u>6032019602</u>	Project Name: <u>Stark Spoke - New Bedford</u>			Pace Project Manager:	Site Location STATE: <u>SC</u>
Fax:	Project Number: <u>60318382.5</u>			Pace Profile #:	
Requested Due Date/AT: <u>STANDARD</u>					

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					DATE	TIME						
1	MWS-1		UST G	UST G	5/21/14	11:18	5					
2	MWS-7		UST G	UST G	5/21/14	13:24	5					
3	MWS-6		UST G	UST G	5/21/14	15:25	5					
4	MWS-8		UST G	UST G	5/21/14	15:25	5					
5												
6												
7												
8												
9												
10												
11												
12												

ADDITIONAL COMMENTS		REINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
		<u>Richard / Arcem Spoke</u>	<u>5/21/14</u>		<u>DRM PETS</u>	<u>5/23/14</u>	<u>5</u>	<input type="checkbox"/> Y				

ORIGINAL

Cooler Receipt Form

Client Name: Recom Project: Shake Spane / Lab Work Order: 12254

A. Shipping/Container Information (circle appropriate response)
 Tracking Number: 8005 6010 9516

Courier: FedEx UPS USPS Client Other: _____
 Air bill Present: Yes No

Custody Seal on Cooler/Box Present: Yes No
 Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None
 Ice Intact: Yes Melted

Cooler Temperature: 50C
 Radiation Screened: Yes No
 Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

Chain of Custody properly filled out	Chain of Custody relinquished	Sampler Name & Signature on COC	Containers intact	Were samples in separate bags	Sample container labels match COC	Sample name/date and time collected	Sufficient volume provided	Microseeps containers used	Are containers properly preserved for the requested testing? (as labeled)	If an unknown preservation state, were containers checked? Exception: VOA's coliform	Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reference non-Conformance Comment	N/A	NO	YES	NO	N/A	Comment	Reference non-Conformance				

Comments: _____

Cooler contents examined/received by: LA Date: 5.23.14

Project Manager Review: KK Date: 5/21/14

EI DATA PACKAGES

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PG18051 were collected on July 18, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PG18051**

Date Completed: **07/22/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PG18051 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PG18051

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PG18051

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	PW-7	Aqueous	07/18/2014 1130	07/18/2014
002	TMW-34	Aqueous	07/18/2014 1455	07/18/2014
003	TMW-35	Aqueous	07/18/2014 1710	07/18/2014
004	Trip Blank	Aqueous	07/18/2014	07/18/2014

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PG18051

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	TMW-34	Aqueous	Trichloroethene	8260B	16		ug/L	8
003	TMW-35	Aqueous	Trichloroethene	8260B	0.34	J	ug/L	10

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-001
Description: PW-7	Matrix: Aqueous
Date Sampled: 07/18/2014 1130	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1434	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-001
Description: PW-7	Matrix: Aqueous
Date Sampled: 07/18/2014 1130	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1434	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-002
Description: TMW-34	Matrix: Aqueous
Date Sampled: 07/18/2014 1455	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1457	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-002
Description: TMW-34	Matrix: Aqueous
Date Sampled: 07/18/2014 1455	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1457	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	16		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-003
Description: TMW-35	Matrix: Aqueous
Date Sampled: 07/18/2014 1710	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1520	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-003
Description: TMW-35	Matrix: Aqueous
Date Sampled: 07/18/2014 1710	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1520	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.34	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Run 1 Q	% Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-004
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 07/18/2014	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1303	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG18051-004
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 07/18/2014	
Date Received: 07/18/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2014 1303	EH1		51850

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51850-001

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/20/2014 1241
Benzene	ND		1	5.0	0.20	ug/L	07/20/2014 1241
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Bromoform	ND		1	5.0	0.40	ug/L	07/20/2014 1241
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/20/2014 1241
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/20/2014 1241
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/20/2014 1241
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/20/2014 1241
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Chloroethane	ND		1	5.0	0.50	ug/L	07/20/2014 1241
Chloroform	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/20/2014 1241
Cyclohexane	ND		1	5.0	0.98	ug/L	07/20/2014 1241
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/20/2014 1241
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/20/2014 1241
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/20/2014 1241
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/20/2014 1241
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/20/2014 1241
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/20/2014 1241
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/20/2014 1241
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/20/2014 1241
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/20/2014 1241
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
2-Hexanone	ND		1	10	1.0	ug/L	07/20/2014 1241
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/20/2014 1241
Methyl acetate	ND		1	5.0	0.72	ug/L	07/20/2014 1241
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/20/2014 1241
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/20/2014 1241
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/20/2014 1241
Methylene chloride	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Styrene	ND		1	5.0	0.10	ug/L	07/20/2014 1241
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/20/2014 1241
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/20/2014 1241
Toluene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/20/2014 1241
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/20/2014 1241

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51850-001

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/20/2014 1241
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/20/2014 1241
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/20/2014 1241
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/20/2014 1241
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		92	70-130				
Toluene-d8		96	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51850-002

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	74		1	74	60-140	07/20/2014 1109
Benzene	50	50		1	99	70-130	07/20/2014 1109
Bromodichloromethane	50	51		1	101	70-130	07/20/2014 1109
Bromoform	50	53		1	106	70-130	07/20/2014 1109
Bromomethane (Methyl bromide)	50	50		1	100	60-140	07/20/2014 1109
2-Butanone (MEK)	100	85		1	85	60-140	07/20/2014 1109
Carbon disulfide	50	49		1	97	60-140	07/20/2014 1109
Carbon tetrachloride	50	50		1	100	70-130	07/20/2014 1109
Chlorobenzene	50	50		1	101	70-130	07/20/2014 1109
Chloroethane	50	48		1	95	42-163	07/20/2014 1109
Chloroform	50	49		1	99	70-130	07/20/2014 1109
Chloromethane (Methyl chloride)	50	46		1	92	60-140	07/20/2014 1109
Cyclohexane	50	47		1	95	70-130	07/20/2014 1109
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	90	70-130	07/20/2014 1109
Dibromochloromethane	50	53		1	105	70-130	07/20/2014 1109
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	07/20/2014 1109
1,4-Dichlorobenzene	50	49		1	98	70-130	07/20/2014 1109
1,3-Dichlorobenzene	50	51		1	101	70-130	07/20/2014 1109
1,2-Dichlorobenzene	50	48		1	96	70-130	07/20/2014 1109
Dichlorodifluoromethane	50	49		1	98	60-140	07/20/2014 1109
1,1-Dichloroethane	50	48		1	96	70-130	07/20/2014 1109
1,2-Dichloroethane	50	48		1	96	70-130	07/20/2014 1109
cis-1,2-Dichloroethene	50	48		1	97	70-130	07/20/2014 1109
1,1-Dichloroethene	50	49		1	98	70-130	07/20/2014 1109
trans-1,2-Dichloroethene	50	48		1	96	70-130	07/20/2014 1109
1,2-Dichloropropane	50	49		1	98	70-130	07/20/2014 1109
trans-1,3-Dichloropropene	50	49		1	97	70-130	07/20/2014 1109
cis-1,3-Dichloropropene	50	53		1	106	70-130	07/20/2014 1109
Ethylbenzene	50	51		1	102	70-130	07/20/2014 1109
2-Hexanone	100	99		1	99	60-140	07/20/2014 1109
Isopropylbenzene	50	54		1	107	70-130	07/20/2014 1109
Methyl acetate	50	41		1	82	70-130	07/20/2014 1109
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	07/20/2014 1109
4-Methyl-2-pentanone	100	94		1	94	60-140	07/20/2014 1109
Methylcyclohexane	50	50		1	99	70-130	07/20/2014 1109
Methylene chloride	50	45		1	90	70-130	07/20/2014 1109
Styrene	50	53		1	105	70-130	07/20/2014 1109
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	07/20/2014 1109
Tetrachloroethene	50	50		1	99	70-130	07/20/2014 1109
Toluene	50	51		1	102	70-130	07/20/2014 1109
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	102	70-130	07/20/2014 1109
1,2,4-Trichlorobenzene	50	46		1	92	70-130	07/20/2014 1109
1,1,2-Trichloroethane	50	48		1	97	70-130	07/20/2014 1109
1,1,1-Trichloroethane	50	49		1	97	70-130	07/20/2014 1109

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51850-002

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	07/20/2014 1109
Trichlorofluoromethane	50	50		1	100	70-130	07/20/2014 1109
Vinyl chloride	50	48		1	96	70-130	07/20/2014 1109
Xylenes (total)	100	100		1	103	70-130	07/20/2014 1109
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		99			70-130		
1,2-Dichloroethane-d4		90			70-130		
Toluene-d8		97			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51850-003

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	75		1	75	1.8	60-140	20	07/20/2014 1132
Benzene	50	50		1	100	0.49	70-130	20	07/20/2014 1132
Bromodichloromethane	50	51		1	101	0.17	70-130	20	07/20/2014 1132
Bromoform	50	52		1	104	2.0	70-130	20	07/20/2014 1132
Bromomethane (Methyl bromide)	50	52		1	105	4.7	60-140	20	07/20/2014 1132
2-Butanone (MEK)	100	88		1	88	2.7	60-140	20	07/20/2014 1132
Carbon disulfide	50	48		1	97	0.76	60-140	20	07/20/2014 1132
Carbon tetrachloride	50	50		1	100	0.030	70-130	20	07/20/2014 1132
Chlorobenzene	50	50		1	100	1.1	70-130	20	07/20/2014 1132
Chloroethane	50	48		1	97	1.9	42-163	20	07/20/2014 1132
Chloroform	50	49		1	97	1.6	70-130	20	07/20/2014 1132
Chloromethane (Methyl chloride)	50	45		1	90	1.5	60-140	20	07/20/2014 1132
Cyclohexane	50	49		1	98	2.7	70-130	20	07/20/2014 1132
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	90	0.54	70-130	20	07/20/2014 1132
Dibromochloromethane	50	51		1	102	2.6	70-130	20	07/20/2014 1132
1,2-Dibromoethane (EDB)	50	50		1	100	0.050	70-130	20	07/20/2014 1132
1,4-Dichlorobenzene	50	50		1	100	1.3	70-130	20	07/20/2014 1132
1,3-Dichlorobenzene	50	51		1	101	0.19	70-130	20	07/20/2014 1132
1,2-Dichlorobenzene	50	48		1	97	0.49	70-130	20	07/20/2014 1132
Dichlorodifluoromethane	50	50		1	99	1.0	60-140	20	07/20/2014 1132
1,1-Dichloroethane	50	47		1	94	2.3	70-130	20	07/20/2014 1132
1,2-Dichloroethane	50	47		1	94	2.7	70-130	20	07/20/2014 1132
cis-1,2-Dichloroethene	50	48		1	96	0.26	70-130	20	07/20/2014 1132
1,1-Dichloroethene	50	48		1	96	1.8	70-130	20	07/20/2014 1132
trans-1,2-Dichloroethene	50	49		1	97	1.0	70-130	20	07/20/2014 1132
1,2-Dichloropropane	50	49		1	98	0.20	70-130	20	07/20/2014 1132
trans-1,3-Dichloropropene	50	48		1	97	0.46	70-130	20	07/20/2014 1132
cis-1,3-Dichloropropene	50	53		1	106	0.11	70-130	20	07/20/2014 1132
Ethylbenzene	50	51		1	101	0.20	70-130	20	07/20/2014 1132
2-Hexanone	100	100		1	101	2.2	60-140	20	07/20/2014 1132
Isopropylbenzene	50	54		1	108	0.35	70-130	20	07/20/2014 1132
Methyl acetate	50	40		1	80	2.9	70-130	20	07/20/2014 1132
Methyl tertiary butyl ether (MTBE)	50	46		1	92	12	70-130	20	07/20/2014 1132
4-Methyl-2-pentanone	100	94		1	94	0.58	60-140	20	07/20/2014 1132
Methylcyclohexane	50	51		1	101	1.8	70-130	20	07/20/2014 1132
Methylene chloride	50	44		1	88	2.4	70-130	20	07/20/2014 1132
Styrene	50	52		1	104	0.66	70-130	20	07/20/2014 1132
1,1,2,2-Tetrachloroethane	50	49		1	98	3.0	70-130	20	07/20/2014 1132
Tetrachloroethene	50	50		1	100	0.46	70-130	20	07/20/2014 1132
Toluene	50	51		1	103	0.69	70-130	20	07/20/2014 1132
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	0.82	70-130	20	07/20/2014 1132
1,2,4-Trichlorobenzene	50	52		1	104	12	70-130	20	07/20/2014 1132
1,1,2-Trichloroethane	50	48		1	95	1.3	70-130	20	07/20/2014 1132
1,1,1-Trichloroethane	50	49		1	97	0.19	70-130	20	07/20/2014 1132

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51850-003

Matrix: Aqueous

Batch: 51850

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	50		1	100	1.6	70-130	20	07/20/2014 1132
Trichlorofluoromethane	50	50		1	100	0.33	70-130	20	07/20/2014 1132
Vinyl chloride	50	48		1	96	0.11	70-130	20	07/20/2014 1132
Xylenes (total)	100	100		1	103	0.72	70-130	20	07/20/2014 1132
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		97	70-130						
1,2-Dichloroethane-d4		89	70-130						
Toluene-d8		97	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number **35408**

Client AELCOM	Report to Contact Scott Ross	Sampler (Printed Name) James Campbell	Quote No.
Address A. CHARLESTON SC	Telephone No. / Fax No. / Email 803 201 9662 / B032019662@AELCOM.COM	Waybill No.	Page 1 of 1
City A. CHARLESTON SC	State SC	Zip Code	Number of Containers
Project Name NEWBERRY	Preservative 1. Ungens. 4. HNO3 7. NaOH 2. NaOH/2/IA 5. HCL 3. H2SO4 6. Na Thio.		Bottle (See Instructions on back) Preservative
P.O. Number 603183825	Matrix CW DW WW S Off		 PG18051
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	
PW-7	7/18/14	1130	3
IMW-34	↓	1465	3
IMW-35	↓	1110	3
TRP Blank	↓	---	2
Analysis			
QC Requirements (Specify)			
Possible Hazard Identification			
Sample Disposal			
Turn Around Time Required (Prior lab approval required for expedited TAT)			
Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Please Specify: 24 HR			
1. Relinquished by Sampler J. Campbell		Date 7/18/14	Time 1810
2. Relinquished by		Date	Time
3. Relinquished by		Date	Time
4. Relinquished by		Date	Time
4. Laboratory Received by James Campbell		Date 7-18-14	Time 1810
LAB USE ONLY Received on for (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> Receipt Temp. 58 °C		Temp. Blank <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N	

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: Accom

Cooler Inspected by/date: KWP 7-18-14 Lot #: Pa 18051

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>1507/57/58 °C</u> / _____ °C / _____ °C / _____ °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present > "pea-size" (½" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>KWP</u> Verified by: _____ Date: <u>7-18-14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PG21048 were collected on July 21, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Semivolatile Organic Compounds by Method 8270D

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PG21048**

Date Completed: **Preliminary**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PG21048 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PG21048

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PG21048

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-36	Aqueous	07/21/2014 1320	07/21/2014
002	MW-1	Aqueous	07/21/2014 1448	07/21/2014
003	MW-2	Aqueous	07/21/2014 1543	07/21/2014
004	TRIP BLANK	Aqueous	07/21/2014	07/21/2014

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PG21048

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
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(0 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG21048-001
Description: TMW-36	Matrix: Aqueous
Date Sampled: 07/21/2014 1320	
Date Received: 07/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2304	PMM2		51986

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG21048-001
Description: TMW-36	Matrix: Aqueous
Date Sampled: 07/21/2014 1320	
Date Received: 07/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2304	PMM2		51986

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG21048-004
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/21/2014	
Date Received: 07/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2241	PMM2		51986

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG21048-004
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/21/2014	
Date Received: 07/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2241	PMM2		51986

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"



QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51986-001

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/21/2014 2218
Benzene	ND		1	5.0	0.20	ug/L	07/21/2014 2218
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Bromoform	ND		1	5.0	0.40	ug/L	07/21/2014 2218
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/21/2014 2218
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/21/2014 2218
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/21/2014 2218
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/21/2014 2218
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Chloroethane	ND		1	5.0	0.50	ug/L	07/21/2014 2218
Chloroform	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/21/2014 2218
Cyclohexane	ND		1	5.0	0.98	ug/L	07/21/2014 2218
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/21/2014 2218
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/21/2014 2218
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/21/2014 2218
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/21/2014 2218
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/21/2014 2218
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/21/2014 2218
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/21/2014 2218
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/21/2014 2218
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/21/2014 2218
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
2-Hexanone	ND		1	10	1.0	ug/L	07/21/2014 2218
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/21/2014 2218
Methyl acetate	ND		1	5.0	0.72	ug/L	07/21/2014 2218
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/21/2014 2218
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/21/2014 2218
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/21/2014 2218
Methylene chloride	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Styrene	ND		1	5.0	0.10	ug/L	07/21/2014 2218
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/21/2014 2218
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/21/2014 2218
Toluene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2218
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/21/2014 2218

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51986-001

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/21/2014 2218
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/21/2014 2218
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/21/2014 2218
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/21/2014 2218
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		97	70-130				
1,2-Dichloroethane-d4		101	70-130				
Toluene-d8		97	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51986-002

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	72		1	72	60-140	07/21/2014 2047
Benzene	50	50		1	99	70-130	07/21/2014 2047
Bromodichloromethane	50	51		1	101	70-130	07/21/2014 2047
Bromoform	50	50		1	99	70-130	07/21/2014 2047
Bromomethane (Methyl bromide)	50	41		1	82	60-140	07/21/2014 2047
2-Butanone (MEK)	100	85		1	85	60-140	07/21/2014 2047
Carbon disulfide	50	48		1	97	60-140	07/21/2014 2047
Carbon tetrachloride	50	51		1	103	70-130	07/21/2014 2047
Chlorobenzene	50	49		1	98	70-130	07/21/2014 2047
Chloroethane	50	44		1	89	42-163	07/21/2014 2047
Chloroform	50	50		1	100	70-130	07/21/2014 2047
Chloromethane (Methyl chloride)	50	47		1	93	60-140	07/21/2014 2047
Cyclohexane	50	50		1	99	70-130	07/21/2014 2047
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	07/21/2014 2047
Dibromochloromethane	50	51		1	102	70-130	07/21/2014 2047
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	07/21/2014 2047
1,4-Dichlorobenzene	50	48		1	96	70-130	07/21/2014 2047
1,3-Dichlorobenzene	50	49		1	98	70-130	07/21/2014 2047
1,2-Dichlorobenzene	50	48		1	95	70-130	07/21/2014 2047
Dichlorodifluoromethane	50	51		1	101	60-140	07/21/2014 2047
1,2-Dichloroethane	50	49		1	99	70-130	07/21/2014 2047
1,1-Dichloroethane	50	49		1	99	70-130	07/21/2014 2047
trans-1,2-Dichloroethene	50	50		1	100	70-130	07/21/2014 2047
cis-1,2-Dichloroethene	50	49		1	97	70-130	07/21/2014 2047
1,1-Dichloroethene	50	50		1	100	70-130	07/21/2014 2047
1,2-Dichloropropane	50	49		1	98	70-130	07/21/2014 2047
trans-1,3-Dichloropropene	50	47		1	95	70-130	07/21/2014 2047
cis-1,3-Dichloropropene	50	52		1	105	70-130	07/21/2014 2047
Ethylbenzene	50	50		1	100	70-130	07/21/2014 2047
2-Hexanone	100	100		1	101	60-140	07/21/2014 2047
Isopropylbenzene	50	51		1	102	70-130	07/21/2014 2047
Methyl acetate	50	44		1	87	70-130	07/21/2014 2047
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	07/21/2014 2047
4-Methyl-2-pentanone	100	97		1	97	60-140	07/21/2014 2047
Methylcyclohexane	50	51		1	102	70-130	07/21/2014 2047
Methylene chloride	50	45		1	90	70-130	07/21/2014 2047
Styrene	50	52		1	103	70-130	07/21/2014 2047
1,1,2,2-Tetrachloroethane	50	47		1	94	70-130	07/21/2014 2047
Tetrachloroethene	50	50		1	100	70-130	07/21/2014 2047
Toluene	50	51		1	102	70-130	07/21/2014 2047
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	109	70-130	07/21/2014 2047
1,2,4-Trichlorobenzene	50	46		1	93	70-130	07/21/2014 2047
1,1,2-Trichloroethane	50	47		1	94	70-130	07/21/2014 2047
1,1,1-Trichloroethane	50	49		1	97	70-130	07/21/2014 2047

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51986-002

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	07/21/2014 2047
Trichlorofluoromethane	50	50		1	99	70-130	07/21/2014 2047
Vinyl chloride	50	47		1	94	70-130	07/21/2014 2047
Xylenes (total)	100	100		1	102	70-130	07/21/2014 2047
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		95	70-130				
1,2-Dichloroethane-d4		90	70-130				
Toluene-d8		92	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51986-003

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	69		1	69	3.8	60-140	20	07/21/2014 2109
Benzene	50	52		1	104	4.9	70-130	20	07/21/2014 2109
Bromodichloromethane	50	53		1	105	3.6	70-130	20	07/21/2014 2109
Bromoform	50	52		1	104	4.2	70-130	20	07/21/2014 2109
Bromomethane (Methyl bromide)	50	48		1	95	15	60-140	20	07/21/2014 2109
2-Butanone (MEK)	100	89		1	89	5.2	60-140	20	07/21/2014 2109
Carbon disulfide	50	51		1	102	5.4	60-140	20	07/21/2014 2109
Carbon tetrachloride	50	54		1	108	4.5	70-130	20	07/21/2014 2109
Chlorobenzene	50	51		1	103	4.8	70-130	20	07/21/2014 2109
Chloroethane	50	50		1	100	12	42-163	20	07/21/2014 2109
Chloroform	50	52		1	104	3.7	70-130	20	07/21/2014 2109
Chloromethane (Methyl chloride)	50	50		1	100	6.8	60-140	20	07/21/2014 2109
Cyclohexane	50	56		1	112	12	70-130	20	07/21/2014 2109
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	8.9	70-130	20	07/21/2014 2109
Dibromochloromethane	50	52		1	104	2.0	70-130	20	07/21/2014 2109
1,2-Dibromoethane (EDB)	50	52		1	104	6.4	70-130	20	07/21/2014 2109
1,4-Dichlorobenzene	50	51		1	102	5.8	70-130	20	07/21/2014 2109
1,3-Dichlorobenzene	50	52		1	105	6.2	70-130	20	07/21/2014 2109
1,2-Dichlorobenzene	50	50		1	100	5.4	70-130	20	07/21/2014 2109
Dichlorodifluoromethane	50	55		1	111	9.0	60-140	20	07/21/2014 2109
1,2-Dichloroethane	50	50		1	100	1.1	70-130	20	07/21/2014 2109
1,1-Dichloroethane	50	51		1	103	3.7	70-130	20	07/21/2014 2109
trans-1,2-Dichloroethene	50	52		1	105	5.0	70-130	20	07/21/2014 2109
cis-1,2-Dichloroethene	50	50		1	99	2.0	70-130	20	07/21/2014 2109
1,1-Dichloroethene	50	52		1	105	4.9	70-130	20	07/21/2014 2109
1,2-Dichloropropane	50	51		1	103	4.7	70-130	20	07/21/2014 2109
trans-1,3-Dichloropropene	50	50		1	99	4.6	70-130	20	07/21/2014 2109
cis-1,3-Dichloropropene	50	55		1	110	4.8	70-130	20	07/21/2014 2109
Ethylbenzene	50	53		1	106	6.0	70-130	20	07/21/2014 2109
2-Hexanone	100	110		1	108	6.5	60-140	20	07/21/2014 2109
Isopropylbenzene	50	56		1	111	8.5	70-130	20	07/21/2014 2109
Methyl acetate	50	47		1	95	8.0	70-130	20	07/21/2014 2109
Methyl tertiary butyl ether (MTBE)	50	50		1	101	0.77	70-130	20	07/21/2014 2109
4-Methyl-2-pentanone	100	100		1	101	4.4	60-140	20	07/21/2014 2109
Methylcyclohexane	50	55		1	109	6.6	70-130	20	07/21/2014 2109
Methylene chloride	50	47		1	94	4.4	70-130	20	07/21/2014 2109
Styrene	50	54		1	109	5.2	70-130	20	07/21/2014 2109
1,1,2,2-Tetrachloroethane	50	51		1	101	6.9	70-130	20	07/21/2014 2109
Tetrachloroethene	50	52		1	105	4.5	70-130	20	07/21/2014 2109
Toluene	50	53		1	106	4.2	70-130	20	07/21/2014 2109
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	119	8.9	70-130	20	07/21/2014 2109
1,2,4-Trichlorobenzene	50	55		1	110	17	70-130	20	07/21/2014 2109
1,1,2-Trichloroethane	50	49		1	98	4.4	70-130	20	07/21/2014 2109
1,1,1-Trichloroethane	50	52		1	104	6.9	70-130	20	07/21/2014 2109

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51986-003

Matrix: Aqueous

Batch: 51986

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	52		1	103	4.9	70-130	20	07/21/2014 2109
Trichlorofluoromethane	50	55		1	110	9.9	70-130	20	07/21/2014 2109
Vinyl chloride	50	51		1	102	8.2	70-130	20	07/21/2014 2109
Xylenes (total)	100	110		1	107	4.9	70-130	20	07/21/2014 2109
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		99	70-130						
1,2-Dichloroethane-d4		92	70-130						
Toluene-d8		98	70-130						

PQL = Practical quantitation limit

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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: Aecom Cooler Inspected by/date: KWP / 7-21-14 Lot #: PG21049

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>149/5.0</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>KWP</u> Verified by: _____ Date: <u>7-21-14</u>		

Comments:

PRELIMINARY

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PG22051 were collected on July 22, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PG22051**

Date Completed: **07/24/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PG22051 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PG22051

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PG22051

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-37	Aqueous	07/22/2014 0953	07/22/2014
002	TMW-38	Aqueous	07/22/2014 1115	07/22/2014
003	TMW-39	Aqueous	07/22/2014 1320	07/22/2014
004	TMW-41	Aqueous	07/22/2014 1518	07/22/2014
005	TRIP BLANK	Aqueous	07/22/2014	07/22/2014

(5 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PG22051

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-37	Aqueous	Trichloroethene	8260B	1.5	J	ug/L	6
002	TMW-38	Aqueous	cis-1,2-Dichloroethene	8260B	0.27	J	ug/L	7
002	TMW-38	Aqueous	Tetrachloroethene	8260B	0.79	J	ug/L	7
002	TMW-38	Aqueous	Trichloroethene	8260B	120		ug/L	8

(4 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-001
Description: TMW-37	Matrix: Aqueous
Date Sampled: 07/22/2014 0953	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0112	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-001
Description: TMW-37	Matrix: Aqueous
Date Sampled: 07/22/2014 0953	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0112	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	1.5	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-002
Description: TMW-38	Matrix: Aqueous
Date Sampled: 07/22/2014 1115	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0135	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.27	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.79	J	5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-002
Description: TMW-38	Matrix: Aqueous
Date Sampled: 07/22/2014 1115	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0135	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	120		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-003
Description: TMW-39	Matrix: Aqueous
Date Sampled: 07/22/2014 1320	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0158	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-003
Description: TMW-39	Matrix: Aqueous
Date Sampled: 07/22/2014 1320	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0158	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-004
Description: TMW-41	Matrix: Aqueous
Date Sampled: 07/22/2014 1518	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0221	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-004
Description: TMW-41	Matrix: Aqueous
Date Sampled: 07/22/2014 1518	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0221	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/22/2014	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0050	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG22051-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/22/2014	
Date Received: 07/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 0050	PMM2		52217

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52217-001

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/23/2014 2309
Benzene	ND		1	5.0	0.20	ug/L	07/23/2014 2309
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Bromoform	ND		1	5.0	0.40	ug/L	07/23/2014 2309
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/23/2014 2309
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/23/2014 2309
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/23/2014 2309
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/23/2014 2309
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Chloroethane	ND		1	5.0	0.50	ug/L	07/23/2014 2309
Chloroform	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/23/2014 2309
Cyclohexane	ND		1	5.0	0.98	ug/L	07/23/2014 2309
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/23/2014 2309
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/23/2014 2309
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/23/2014 2309
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/23/2014 2309
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/23/2014 2309
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/23/2014 2309
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/23/2014 2309
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/23/2014 2309
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/23/2014 2309
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
2-Hexanone	ND		1	10	1.0	ug/L	07/23/2014 2309
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/23/2014 2309
Methyl acetate	ND		1	5.0	0.72	ug/L	07/23/2014 2309
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/23/2014 2309
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/23/2014 2309
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/23/2014 2309
Methylene chloride	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Styrene	ND		1	5.0	0.10	ug/L	07/23/2014 2309
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/23/2014 2309
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/23/2014 2309
Toluene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/23/2014 2309
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/23/2014 2309

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52217-001

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/23/2014 2309
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/23/2014 2309
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/23/2014 2309
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/23/2014 2309
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		98	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52217-002

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	78		1	78	60-140	07/23/2014 2138
Benzene	50	52		1	104	70-130	07/23/2014 2138
Bromodichloromethane	50	52		1	104	70-130	07/23/2014 2138
Bromoform	50	50		1	99	70-130	07/23/2014 2138
Bromomethane (Methyl bromide)	50	54		1	107	60-140	07/23/2014 2138
2-Butanone (MEK)	100	94		1	94	60-140	07/23/2014 2138
Carbon disulfide	50	52		1	104	60-140	07/23/2014 2138
Carbon tetrachloride	50	54		1	108	70-130	07/23/2014 2138
Chlorobenzene	50	50		1	99	70-130	07/23/2014 2138
Chloroethane	50	51		1	102	42-163	07/23/2014 2138
Chloroform	50	53		1	106	70-130	07/23/2014 2138
Chloromethane (Methyl chloride)	50	50		1	101	60-140	07/23/2014 2138
Cyclohexane	50	53		1	107	70-130	07/23/2014 2138
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	91	70-130	07/23/2014 2138
Dibromochloromethane	50	52		1	103	70-130	07/23/2014 2138
1,2-Dibromoethane (EDB)	50	51		1	101	70-130	07/23/2014 2138
1,4-Dichlorobenzene	50	48		1	96	70-130	07/23/2014 2138
1,3-Dichlorobenzene	50	49		1	98	70-130	07/23/2014 2138
1,2-Dichlorobenzene	50	48		1	97	70-130	07/23/2014 2138
Dichlorodifluoromethane	50	57		1	114	60-140	07/23/2014 2138
1,2-Dichloroethane	50	53		1	105	70-130	07/23/2014 2138
1,1-Dichloroethane	50	53		1	106	70-130	07/23/2014 2138
trans-1,2-Dichloroethene	50	52		1	103	70-130	07/23/2014 2138
cis-1,2-Dichloroethene	50	51		1	101	70-130	07/23/2014 2138
1,1-Dichloroethene	50	52		1	104	70-130	07/23/2014 2138
1,2-Dichloropropane	50	51		1	103	70-130	07/23/2014 2138
trans-1,3-Dichloropropene	50	48		1	97	70-130	07/23/2014 2138
cis-1,3-Dichloropropene	50	54		1	109	70-130	07/23/2014 2138
Ethylbenzene	50	51		1	101	70-130	07/23/2014 2138
2-Hexanone	100	100		1	104	60-140	07/23/2014 2138
Isopropylbenzene	50	53		1	105	70-130	07/23/2014 2138
Methyl acetate	50	44		1	88	70-130	07/23/2014 2138
Methyl tertiary butyl ether (MTBE)	50	56		1	111	70-130	07/23/2014 2138
4-Methyl-2-pentanone	100	100		1	102	60-140	07/23/2014 2138
Methylcyclohexane	50	53		1	105	70-130	07/23/2014 2138
Methylene chloride	50	48		1	95	70-130	07/23/2014 2138
Styrene	50	52		1	104	70-130	07/23/2014 2138
1,1,2,2-Tetrachloroethane	50	49		1	99	70-130	07/23/2014 2138
Tetrachloroethene	50	49		1	99	70-130	07/23/2014 2138
Toluene	50	52		1	104	70-130	07/23/2014 2138
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	116	70-130	07/23/2014 2138
1,2,4-Trichlorobenzene	50	52		1	103	70-130	07/23/2014 2138
1,1,2-Trichloroethane	50	49		1	97	70-130	07/23/2014 2138
1,1,1-Trichloroethane	50	53		1	106	70-130	07/23/2014 2138

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52217-002

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	07/23/2014 2138
Trichlorofluoromethane	50	54		1	108	70-130	07/23/2014 2138
Vinyl chloride	50	51		1	102	70-130	07/23/2014 2138
Xylenes (total)	100	100		1	103	70-130	07/23/2014 2138
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		97	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52217-003

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	88		1	88	13	60-140	20	07/23/2014 2201
Benzene	50	53		1	105	1.3	70-130	20	07/23/2014 2201
Bromodichloromethane	50	54		1	107	2.7	70-130	20	07/23/2014 2201
Bromoform	50	52		1	104	4.6	70-130	20	07/23/2014 2201
Bromomethane (Methyl bromide)	50	52		1	103	3.6	60-140	20	07/23/2014 2201
2-Butanone (MEK)	100	100		1	101	6.9	60-140	20	07/23/2014 2201
Carbon disulfide	50	51		1	102	2.0	60-140	20	07/23/2014 2201
Carbon tetrachloride	50	54		1	108	0.28	70-130	20	07/23/2014 2201
Chlorobenzene	50	52		1	103	4.1	70-130	20	07/23/2014 2201
Chloroethane	50	51		1	102	0.49	42-163	20	07/23/2014 2201
Chloroform	50	53		1	107	0.83	70-130	20	07/23/2014 2201
Chloromethane (Methyl chloride)	50	49		1	99	1.7	60-140	20	07/23/2014 2201
Cyclohexane	50	54		1	107	0.67	70-130	20	07/23/2014 2201
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	2.9	70-130	20	07/23/2014 2201
Dibromochloromethane	50	52		1	105	1.4	70-130	20	07/23/2014 2201
1,2-Dibromoethane (EDB)	50	52		1	105	3.6	70-130	20	07/23/2014 2201
1,4-Dichlorobenzene	50	51		1	102	6.2	70-130	20	07/23/2014 2201
1,3-Dichlorobenzene	50	52		1	104	5.9	70-130	20	07/23/2014 2201
1,2-Dichlorobenzene	50	50		1	100	3.7	70-130	20	07/23/2014 2201
Dichlorodifluoromethane	50	56		1	112	1.7	60-140	20	07/23/2014 2201
1,2-Dichloroethane	50	53		1	105	0.15	70-130	20	07/23/2014 2201
1,1-Dichloroethane	50	52		1	105	0.86	70-130	20	07/23/2014 2201
trans-1,2-Dichloroethene	50	52		1	105	1.5	70-130	20	07/23/2014 2201
cis-1,2-Dichloroethene	50	52		1	105	3.3	70-130	20	07/23/2014 2201
1,1-Dichloroethene	50	51		1	103	0.76	70-130	20	07/23/2014 2201
1,2-Dichloropropane	50	53		1	105	2.3	70-130	20	07/23/2014 2201
trans-1,3-Dichloropropene	50	50		1	100	4.0	70-130	20	07/23/2014 2201
cis-1,3-Dichloropropene	50	56		1	113	3.7	70-130	20	07/23/2014 2201
Ethylbenzene	50	52		1	105	3.7	70-130	20	07/23/2014 2201
2-Hexanone	100	110		1	111	6.3	60-140	20	07/23/2014 2201
Isopropylbenzene	50	55		1	110	4.1	70-130	20	07/23/2014 2201
Methyl acetate	50	51		1	102	14	70-130	20	07/23/2014 2201
Methyl tertiary butyl ether (MTBE)	50	57		1	113	1.9	70-130	20	07/23/2014 2201
4-Methyl-2-pentanone	100	110		1	109	6.9	60-140	20	07/23/2014 2201
Methylcyclohexane	50	54		1	108	2.8	70-130	20	07/23/2014 2201
Methylene chloride	50	49		1	97	1.8	70-130	20	07/23/2014 2201
Styrene	50	55		1	109	4.5	70-130	20	07/23/2014 2201
1,1,2,2-Tetrachloroethane	50	53		1	106	7.6	70-130	20	07/23/2014 2201
Tetrachloroethene	50	50		1	101	1.5	70-130	20	07/23/2014 2201
Toluene	50	54		1	107	2.9	70-130	20	07/23/2014 2201
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	114	2.1	70-130	20	07/23/2014 2201
1,2,4-Trichlorobenzene	50	47		1	95	8.6	70-130	20	07/23/2014 2201
1,1,2-Trichloroethane	50	50		1	99	2.4	70-130	20	07/23/2014 2201
1,1,1-Trichloroethane	50	53		1	107	1.2	70-130	20	07/23/2014 2201

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52217-003

Matrix: Aqueous

Batch: 52217

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	51		1	103	3.0	70-130	20	07/23/2014 2201
Trichlorofluoromethane	50	53		1	106	1.4	70-130	20	07/23/2014 2201
Vinyl chloride	50	50		1	100	2.5	70-130	20	07/23/2014 2201
Xylenes (total)	100	110		1	107	3.3	70-130	20	07/23/2014 2201
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		101	70-130						
1,2-Dichloroethane-d4		97	70-130						
Toluene-d8		100	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: Aecom Cooler Inspected by/date: CMT / 7/22/14 Lot #: PG22051

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>696/4.2/4.3 °C</u> / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>+0.1 °C</u>		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	<u>7/22/14</u> 17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present > "pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<u>16934</u> 24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>CMT</u> Verified by: _____ Date: <u>7/22/14</u>		

Comments: Extra set of Trip Blanks rec'd.

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PG23068 were collected on July 23, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results in this package were qualified “//y” since the temperature of the cooler in sample receiving was recorded above the required temperature of 6 °C or below (9.8 °C). The samples were collected and dropped off at the lab on the same day, so it is likely the samples did not have adequate time to cool to the required temperature.

Data Summary and Usability

The QC excursions encountered during the validation of this data set did not result in the rejection of any data. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PG23068**

Date Completed: **07/25/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PG23068 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PG23068

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PG23068

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-40	Aqueous	07/23/2014 0948	07/23/2014
002	TMW-42	Aqueous	07/23/2014 1150	07/23/2014
003	TMW-35 (35)	Aqueous	07/23/2014 1525	07/23/2014
004	TMW-36 (43.5)	Aqueous	07/23/2014 1715	07/23/2014
005	TRIP BLANK	Aqueous	07/23/2014	07/23/2014

(5 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PG23068

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	TMW-42	Aqueous	Trichloroethene	8260B	1600		ug/L	8
003	TMW-35 (35)	Aqueous	Trichloroethene	8260B	0.39	J	ug/L	10

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-001
Description: TMW-40	Matrix: Aqueous
Date Sampled: 07/23/2014 0948	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0006	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-001
Description: TMW-40	Matrix: Aqueous
Date Sampled: 07/23/2014 0948	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0006	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-002
Description: TMW-42	Matrix: Aqueous
Date Sampled: 07/23/2014 1150	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/25/2014 0433	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		400	130	ug/L	1
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	34	ug/L	1
Bromoform	75-25-2	8260B	ND		100	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	16	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	36	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	6.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	34	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	10	ug/L	1
Chloroform	67-66-3	8260B	ND		100	34	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	6.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	34	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	6.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	34	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	34	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	34	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	4.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	6.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	10	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		100	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		100	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	6.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	6.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	6.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		100	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		100	14	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	16	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	19	ug/L	1
Methylene chloride	75-09-2	8260B	ND		100	34	ug/L	1
Styrene	100-42-5	8260B	ND		100	2.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		100	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	6.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	34	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	6.0	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-002
Description: TMW-42	Matrix: Aqueous
Date Sampled: 07/23/2014 1150	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/25/2014 0433	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	1600		100	6.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		100	6.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		40	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PG23068-003**

 Description: **TMW-35 (35)**

 Matrix: **Aqueous**

 Date Sampled: **07/23/2014 1525**

 Date Received: **07/23/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0031	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-003
Description: TMW-35 (35)	Matrix: Aqueous
Date Sampled: 07/23/2014 1525	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0031	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.39	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-004
Description: TMW-36 (43.5)	Matrix: Aqueous
Date Sampled: 07/23/2014 1715	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0055	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-004
Description: TMW-36 (43.5)	Matrix: Aqueous
Date Sampled: 07/23/2014 1715	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/25/2014 0055	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/23/2014	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 2138	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG23068-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 07/23/2014	
Date Received: 07/23/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/24/2014 2138	PMM2		52324

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52324-001

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/24/2014 2113
Benzene	ND		1	5.0	0.20	ug/L	07/24/2014 2113
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Bromoform	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/24/2014 2113
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/24/2014 2113
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Chloroethane	ND		1	5.0	0.50	ug/L	07/24/2014 2113
Chloroform	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Cyclohexane	ND		1	5.0	0.98	ug/L	07/24/2014 2113
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/24/2014 2113
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/24/2014 2113
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/24/2014 2113
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/24/2014 2113
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/24/2014 2113
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
2-Hexanone	ND		1	10	1.0	ug/L	07/24/2014 2113
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/24/2014 2113
Methyl acetate	ND		1	5.0	0.72	ug/L	07/24/2014 2113
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/24/2014 2113
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/24/2014 2113
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/24/2014 2113
Methylene chloride	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Styrene	ND		1	5.0	0.10	ug/L	07/24/2014 2113
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Toluene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/24/2014 2113

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52324-001

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/24/2014 2113
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/24/2014 2113

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52324-002

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	97		1	97	60-140	07/24/2014 1934
Benzene	50	50		1	99	70-130	07/24/2014 1934
Bromodichloromethane	50	50		1	100	70-130	07/24/2014 1934
Bromoform	50	50		1	101	70-130	07/24/2014 1934
Bromomethane (Methyl bromide)	50	52		1	104	60-140	07/24/2014 1934
2-Butanone (MEK)	100	98		1	98	60-140	07/24/2014 1934
Carbon disulfide	50	48		1	96	60-140	07/24/2014 1934
Carbon tetrachloride	50	51		1	103	70-130	07/24/2014 1934
Chlorobenzene	50	49		1	99	70-130	07/24/2014 1934
Chloroethane	50	52		1	104	42-163	07/24/2014 1934
Chloroform	50	50		1	99	70-130	07/24/2014 1934
Chloromethane (Methyl chloride)	50	49		1	99	60-140	07/24/2014 1934
Cyclohexane	50	50		1	100	70-130	07/24/2014 1934
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	07/24/2014 1934
Dibromochloromethane	50	51		1	101	70-130	07/24/2014 1934
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	07/24/2014 1934
1,3-Dichlorobenzene	50	50		1	100	70-130	07/24/2014 1934
1,4-Dichlorobenzene	50	49		1	99	70-130	07/24/2014 1934
1,2-Dichlorobenzene	50	49		1	99	70-130	07/24/2014 1934
Dichlorodifluoromethane	50	55		1	110	60-140	07/24/2014 1934
1,2-Dichloroethane	50	50		1	101	70-130	07/24/2014 1934
1,1-Dichloroethane	50	50		1	100	70-130	07/24/2014 1934
trans-1,2-Dichloroethene	50	51		1	101	70-130	07/24/2014 1934
cis-1,2-Dichloroethene	50	51		1	102	70-130	07/24/2014 1934
1,1-Dichloroethene	50	53		1	105	70-130	07/24/2014 1934
1,2-Dichloropropane	50	50		1	100	70-130	07/24/2014 1934
cis-1,3-Dichloropropene	50	52		1	104	70-130	07/24/2014 1934
trans-1,3-Dichloropropene	50	53		1	105	70-130	07/24/2014 1934
Ethylbenzene	50	51		1	101	70-130	07/24/2014 1934
2-Hexanone	100	100		1	100	60-140	07/24/2014 1934
Isopropylbenzene	50	52		1	103	70-130	07/24/2014 1934
Methyl acetate	50	46		1	91	70-130	07/24/2014 1934
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	07/24/2014 1934
4-Methyl-2-pentanone	100	100		1	102	60-140	07/24/2014 1934
Methylcyclohexane	50	53		1	106	70-130	07/24/2014 1934
Methylene chloride	50	49		1	98	70-130	07/24/2014 1934
Styrene	50	52		1	104	70-130	07/24/2014 1934
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	07/24/2014 1934
Tetrachloroethene	50	51		1	102	70-130	07/24/2014 1934
Toluene	50	50		1	101	70-130	07/24/2014 1934
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	115	70-130	07/24/2014 1934
1,2,4-Trichlorobenzene	50	48		1	96	70-130	07/24/2014 1934
1,1,2-Trichloroethane	50	50		1	99	70-130	07/24/2014 1934
1,1,1-Trichloroethane	50	48		1	97	70-130	07/24/2014 1934

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52324-002

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	07/24/2014 1934
Trichlorofluoromethane	50	45		1	91	70-130	07/24/2014 1934
Vinyl chloride	50	51		1	102	70-130	07/24/2014 1934
Xylenes (total)	100	100		1	103	70-130	07/24/2014 1934
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		112	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52324-003

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	94		1	94	3.3	60-140	20	07/24/2014 1959
Benzene	50	49		1	99	0.51	70-130	20	07/24/2014 1959
Bromodichloromethane	50	50		1	100	0.12	70-130	20	07/24/2014 1959
Bromoform	50	51		1	102	1.2	70-130	20	07/24/2014 1959
Bromomethane (Methyl bromide)	50	49		1	99	4.8	60-140	20	07/24/2014 1959
2-Butanone (MEK)	100	100		1	101	3.8	60-140	20	07/24/2014 1959
Carbon disulfide	50	44		1	89	7.7	60-140	20	07/24/2014 1959
Carbon tetrachloride	50	50		1	101	2.1	70-130	20	07/24/2014 1959
Chlorobenzene	50	49		1	99	0.018	70-130	20	07/24/2014 1959
Chloroethane	50	50		1	101	3.3	42-163	20	07/24/2014 1959
Chloroform	50	49		1	98	1.5	70-130	20	07/24/2014 1959
Chloromethane (Methyl chloride)	50	52		1	103	4.5	60-140	20	07/24/2014 1959
Cyclohexane	50	49		1	98	2.5	70-130	20	07/24/2014 1959
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	4.3	70-130	20	07/24/2014 1959
Dibromochloromethane	50	51		1	102	0.49	70-130	20	07/24/2014 1959
1,2-Dibromoethane (EDB)	50	51		1	102	1.6	70-130	20	07/24/2014 1959
1,3-Dichlorobenzene	50	50		1	100	0.078	70-130	20	07/24/2014 1959
1,4-Dichlorobenzene	50	50		1	100	0.71	70-130	20	07/24/2014 1959
1,2-Dichlorobenzene	50	49		1	99	0.081	70-130	20	07/24/2014 1959
Dichlorodifluoromethane	50	53		1	107	3.5	60-140	20	07/24/2014 1959
1,2-Dichloroethane	50	50		1	101	0.078	70-130	20	07/24/2014 1959
1,1-Dichloroethane	50	49		1	99	0.90	70-130	20	07/24/2014 1959
trans-1,2-Dichloroethene	50	50		1	100	1.7	70-130	20	07/24/2014 1959
cis-1,2-Dichloroethene	50	50		1	101	1.8	70-130	20	07/24/2014 1959
1,1-Dichloroethene	50	50		1	101	4.3	70-130	20	07/24/2014 1959
1,2-Dichloropropane	50	51		1	101	1.2	70-130	20	07/24/2014 1959
cis-1,3-Dichloropropene	50	53		1	105	0.70	70-130	20	07/24/2014 1959
trans-1,3-Dichloropropene	50	53		1	105	0.28	70-130	20	07/24/2014 1959
Ethylbenzene	50	50		1	101	0.44	70-130	20	07/24/2014 1959
2-Hexanone	100	110		1	108	7.4	60-140	20	07/24/2014 1959
Isopropylbenzene	50	51		1	103	0.56	70-130	20	07/24/2014 1959
Methyl acetate	50	46		1	92	1.1	70-130	20	07/24/2014 1959
Methyl tertiary butyl ether (MTBE)	50	51		1	102	0.033	70-130	20	07/24/2014 1959
4-Methyl-2-pentanone	100	110		1	110	7.3	60-140	20	07/24/2014 1959
Methylcyclohexane	50	52		1	103	2.0	70-130	20	07/24/2014 1959
Methylene chloride	50	47		1	95	3.0	70-130	20	07/24/2014 1959
Styrene	50	52		1	104	0.11	70-130	20	07/24/2014 1959
1,1,2,2-Tetrachloroethane	50	51		1	103	5.7	70-130	20	07/24/2014 1959
Tetrachloroethene	50	50		1	101	1.8	70-130	20	07/24/2014 1959
Toluene	50	51		1	101	0.41	70-130	20	07/24/2014 1959
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	111	3.9	70-130	20	07/24/2014 1959
1,2,4-Trichlorobenzene	50	47		1	93	2.7	70-130	20	07/24/2014 1959
1,1,2-Trichloroethane	50	50		1	101	1.3	70-130	20	07/24/2014 1959
1,1,1-Trichloroethane	50	48		1	97	0.056	70-130	20	07/24/2014 1959

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52324-003

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	49		1	98	1.7	70-130	20	07/24/2014 1959
Trichlorofluoromethane	50	44		1	88	2.9	70-130	20	07/24/2014 1959
Vinyl chloride	50	49		1	99	3.4	70-130	20	07/24/2014 1959
Xylenes (total)	100	100		1	102	1.0	70-130	20	07/24/2014 1959
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		113	70-130						
1,2-Dichloroethane-d4		96	70-130						
Toluene-d8		106	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52324-001

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/24/2014 2113
Benzene	ND		1	5.0	0.20	ug/L	07/24/2014 2113
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Bromoform	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/24/2014 2113
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/24/2014 2113
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Chloroethane	ND		1	5.0	0.50	ug/L	07/24/2014 2113
Chloroform	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Cyclohexane	ND		1	5.0	0.98	ug/L	07/24/2014 2113
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/24/2014 2113
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/24/2014 2113
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/24/2014 2113
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/24/2014 2113
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/24/2014 2113
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
2-Hexanone	ND		1	10	1.0	ug/L	07/24/2014 2113
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/24/2014 2113
Methyl acetate	ND		1	5.0	0.72	ug/L	07/24/2014 2113
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/24/2014 2113
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/24/2014 2113
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/24/2014 2113
Methylene chloride	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Styrene	ND		1	5.0	0.10	ug/L	07/24/2014 2113
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/24/2014 2113
Toluene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/24/2014 2113
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/24/2014 2113

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52324-001

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/24/2014 2113
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/24/2014 2113
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/24/2014 2113
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		110	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52324-002

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	97		1	97	60-140	07/24/2014 1934
Benzene	50	50		1	99	70-130	07/24/2014 1934
Bromodichloromethane	50	50		1	100	70-130	07/24/2014 1934
Bromoform	50	50		1	101	70-130	07/24/2014 1934
Bromomethane (Methyl bromide)	50	52		1	104	60-140	07/24/2014 1934
2-Butanone (MEK)	100	98		1	98	60-140	07/24/2014 1934
Carbon disulfide	50	48		1	96	60-140	07/24/2014 1934
Carbon tetrachloride	50	51		1	103	70-130	07/24/2014 1934
Chlorobenzene	50	49		1	99	70-130	07/24/2014 1934
Chloroethane	50	52		1	104	42-163	07/24/2014 1934
Chloroform	50	50		1	99	70-130	07/24/2014 1934
Chloromethane (Methyl chloride)	50	49		1	99	60-140	07/24/2014 1934
Cyclohexane	50	50		1	100	70-130	07/24/2014 1934
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	07/24/2014 1934
Dibromochloromethane	50	51		1	101	70-130	07/24/2014 1934
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	07/24/2014 1934
1,3-Dichlorobenzene	50	50		1	100	70-130	07/24/2014 1934
1,4-Dichlorobenzene	50	49		1	99	70-130	07/24/2014 1934
1,2-Dichlorobenzene	50	49		1	99	70-130	07/24/2014 1934
Dichlorodifluoromethane	50	55		1	110	60-140	07/24/2014 1934
1,2-Dichloroethane	50	50		1	101	70-130	07/24/2014 1934
1,1-Dichloroethane	50	50		1	100	70-130	07/24/2014 1934
trans-1,2-Dichloroethene	50	51		1	101	70-130	07/24/2014 1934
cis-1,2-Dichloroethene	50	51		1	102	70-130	07/24/2014 1934
1,1-Dichloroethene	50	53		1	105	70-130	07/24/2014 1934
1,2-Dichloropropane	50	50		1	100	70-130	07/24/2014 1934
cis-1,3-Dichloropropene	50	52		1	104	70-130	07/24/2014 1934
trans-1,3-Dichloropropene	50	53		1	105	70-130	07/24/2014 1934
Ethylbenzene	50	51		1	101	70-130	07/24/2014 1934
2-Hexanone	100	100		1	100	60-140	07/24/2014 1934
Isopropylbenzene	50	52		1	103	70-130	07/24/2014 1934
Methyl acetate	50	46		1	91	70-130	07/24/2014 1934
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	07/24/2014 1934
4-Methyl-2-pentanone	100	100		1	102	60-140	07/24/2014 1934
Methylcyclohexane	50	53		1	106	70-130	07/24/2014 1934
Methylene chloride	50	49		1	98	70-130	07/24/2014 1934
Styrene	50	52		1	104	70-130	07/24/2014 1934
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	07/24/2014 1934
Tetrachloroethene	50	51		1	102	70-130	07/24/2014 1934
Toluene	50	50		1	101	70-130	07/24/2014 1934
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	115	70-130	07/24/2014 1934
1,2,4-Trichlorobenzene	50	48		1	96	70-130	07/24/2014 1934
1,1,2-Trichloroethane	50	50		1	99	70-130	07/24/2014 1934
1,1,1-Trichloroethane	50	48		1	97	70-130	07/24/2014 1934

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52324-002

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	07/24/2014 1934
Trichlorofluoromethane	50	45		1	91	70-130	07/24/2014 1934
Vinyl chloride	50	51		1	102	70-130	07/24/2014 1934
Xylenes (total)	100	100		1	103	70-130	07/24/2014 1934
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		112	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52324-003

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	94		1	94	3.3	60-140	20	07/24/2014 1959
Benzene	50	49		1	99	0.51	70-130	20	07/24/2014 1959
Bromodichloromethane	50	50		1	100	0.12	70-130	20	07/24/2014 1959
Bromoform	50	51		1	102	1.2	70-130	20	07/24/2014 1959
Bromomethane (Methyl bromide)	50	49		1	99	4.8	60-140	20	07/24/2014 1959
2-Butanone (MEK)	100	100		1	101	3.8	60-140	20	07/24/2014 1959
Carbon disulfide	50	44		1	89	7.7	60-140	20	07/24/2014 1959
Carbon tetrachloride	50	50		1	101	2.1	70-130	20	07/24/2014 1959
Chlorobenzene	50	49		1	99	0.018	70-130	20	07/24/2014 1959
Chloroethane	50	50		1	101	3.3	42-163	20	07/24/2014 1959
Chloroform	50	49		1	98	1.5	70-130	20	07/24/2014 1959
Chloromethane (Methyl chloride)	50	52		1	103	4.5	60-140	20	07/24/2014 1959
Cyclohexane	50	49		1	98	2.5	70-130	20	07/24/2014 1959
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	4.3	70-130	20	07/24/2014 1959
Dibromochloromethane	50	51		1	102	0.49	70-130	20	07/24/2014 1959
1,2-Dibromoethane (EDB)	50	51		1	102	1.6	70-130	20	07/24/2014 1959
1,3-Dichlorobenzene	50	50		1	100	0.078	70-130	20	07/24/2014 1959
1,4-Dichlorobenzene	50	50		1	100	0.71	70-130	20	07/24/2014 1959
1,2-Dichlorobenzene	50	49		1	99	0.081	70-130	20	07/24/2014 1959
Dichlorodifluoromethane	50	53		1	107	3.5	60-140	20	07/24/2014 1959
1,2-Dichloroethane	50	50		1	101	0.078	70-130	20	07/24/2014 1959
1,1-Dichloroethane	50	49		1	99	0.90	70-130	20	07/24/2014 1959
trans-1,2-Dichloroethene	50	50		1	100	1.7	70-130	20	07/24/2014 1959
cis-1,2-Dichloroethene	50	50		1	101	1.8	70-130	20	07/24/2014 1959
1,1-Dichloroethene	50	50		1	101	4.3	70-130	20	07/24/2014 1959
1,2-Dichloropropane	50	51		1	101	1.2	70-130	20	07/24/2014 1959
cis-1,3-Dichloropropene	50	53		1	105	0.70	70-130	20	07/24/2014 1959
trans-1,3-Dichloropropene	50	53		1	105	0.28	70-130	20	07/24/2014 1959
Ethylbenzene	50	50		1	101	0.44	70-130	20	07/24/2014 1959
2-Hexanone	100	110		1	108	7.4	60-140	20	07/24/2014 1959
Isopropylbenzene	50	51		1	103	0.56	70-130	20	07/24/2014 1959
Methyl acetate	50	46		1	92	1.1	70-130	20	07/24/2014 1959
Methyl tertiary butyl ether (MTBE)	50	51		1	102	0.033	70-130	20	07/24/2014 1959
4-Methyl-2-pentanone	100	110		1	110	7.3	60-140	20	07/24/2014 1959
Methylcyclohexane	50	52		1	103	2.0	70-130	20	07/24/2014 1959
Methylene chloride	50	47		1	95	3.0	70-130	20	07/24/2014 1959
Styrene	50	52		1	104	0.11	70-130	20	07/24/2014 1959
1,1,2,2-Tetrachloroethane	50	51		1	103	5.7	70-130	20	07/24/2014 1959
Tetrachloroethene	50	50		1	101	1.8	70-130	20	07/24/2014 1959
Toluene	50	51		1	101	0.41	70-130	20	07/24/2014 1959
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	111	3.9	70-130	20	07/24/2014 1959
1,2,4-Trichlorobenzene	50	47		1	93	2.7	70-130	20	07/24/2014 1959
1,1,2-Trichloroethane	50	50		1	101	1.3	70-130	20	07/24/2014 1959
1,1,1-Trichloroethane	50	48		1	97	0.056	70-130	20	07/24/2014 1959

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52324-003

Matrix: Aqueous

Batch: 52324

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	49		1	98	1.7	70-130	20	07/24/2014 1959
Trichlorofluoromethane	50	44		1	88	2.9	70-130	20	07/24/2014 1959
Vinyl chloride	50	49		1	99	3.4	70-130	20	07/24/2014 1959
Xylenes (total)	100	100		1	102	1.0	70-130	20	07/24/2014 1959
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		113	70-130						
1,2-Dichloroethane-d4		96	70-130						
Toluene-d8		106	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record

Number **35411**



Client AECOM	Report to Contact Scott Ross	Sampler (Printed Name) JAMES LEIGH HART	Quote No.	
Address	Telephone No. / Fax No. / Email SCOTT.ROSS@AECOM.COM	Waybill No.	Page 1 of 1	Number of Containers Bottle (See instructions on back) Preservative
City A. CHARLESTON SC	State SC	Zip Code	Barcode 	
Project Name NEW BERRY	Project Number 60318382.5	Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Tho.	Analysis H A - (SC) VOCs 3 3 3 3 2	
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Matrix G G G G -	Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
Trip - 40 Trip - 42 TML-35 (35) TML-36 (435) Trip Blank	7/23/14 - - - -	0948 1150 1525 1715 -	GW GW GW GW -	QC Requirements (Specify)
Turn Around Time Required (Prior lab approval required for expedited TAT) <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) 24 HR	Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab	Date 7/23/14	Time 1810	1. Received by
1. Relinquished by / Sampler J. Leigh Hart	Date	Date	Date	Date 7/22/14
2. Relinquished by	Date	Date	Date	Time 1810
3. Relinquished by	Date	Date	Date	Time
4. Relinquished by	Date	Date	Date	Time
Note: All samples are retained for six weeks from receipt unless other arrangements are made.				LAB USE ONLY Received on Ion (Check) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack <input type="checkbox"/> Receipt Temp. 9.8 °C Temp. Blank <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AI-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: MAM / 02/23/14 Lot #: 9A23068

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>1902 / 9.7 / 9.8</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>(SRC)</u> phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>MAM</u> Verified by: <u>MAM</u> Date: <u>7/23/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PG24056 were collected on July 24, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PG24056**

Date Completed: **07/28/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PG24056 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PG24056

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PG24056

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-43	Aqueous	07/24/2014 0958	07/24/2014
002	DUP-1	Aqueous	07/24/2014 0958	07/24/2014

(2 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PG24056

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-43	Aqueous	cis-1,2-Dichloroethene	8260B	1.9	J	ug/L	5
001	TMW-43	Aqueous	Trichloroethene	8260B	130		ug/L	6
002	DUP-1	Aqueous	cis-1,2-Dichloroethene	8260B	2.5	J	ug/L	7
002	DUP-1	Aqueous	Trichloroethene	8260B	130		ug/L	8

(4 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG24056-001
Description: TMW-43	Matrix: Aqueous
Date Sampled: 07/24/2014 0958	
Date Received: 07/24/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/26/2014 0129	PMM2		52417

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.9	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG24056-001
Description: TMW-43	Matrix: Aqueous
Date Sampled: 07/24/2014 0958	
Date Received: 07/24/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/26/2014 0129	PMM2		52417

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	130		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PG24056-002**

 Description: **DUP-1**

 Matrix: **Aqueous**

 Date Sampled: **07/24/2014 0958**

 Date Received: **07/24/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/26/2014 0153	PMM2		52417

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.5	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PG24056-002
Description: DUP-1	Matrix: Aqueous
Date Sampled: 07/24/2014 0958	
Date Received: 07/24/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/26/2014 0153	PMM2		52417

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	130		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52417-001

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	07/25/2014 2305
Benzene	ND		1	5.0	0.20	ug/L	07/25/2014 2305
Bromodichloromethane	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Bromoform	ND		1	5.0	0.40	ug/L	07/25/2014 2305
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	07/25/2014 2305
2-Butanone (MEK)	ND		1	10	1.8	ug/L	07/25/2014 2305
Carbon disulfide	ND		1	5.0	0.30	ug/L	07/25/2014 2305
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	07/25/2014 2305
Chlorobenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Chloroethane	ND		1	5.0	0.50	ug/L	07/25/2014 2305
Chloroform	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	07/25/2014 2305
Cyclohexane	ND		1	5.0	0.98	ug/L	07/25/2014 2305
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	07/25/2014 2305
Dibromochloromethane	ND		1	5.0	1.7	ug/L	07/25/2014 2305
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	07/25/2014 2305
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	07/25/2014 2305
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	07/25/2014 2305
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	07/25/2014 2305
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	07/25/2014 2305
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/25/2014 2305
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	07/25/2014 2305
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
2-Hexanone	ND		1	10	1.0	ug/L	07/25/2014 2305
Isopropylbenzene	ND		1	5.0	1.0	ug/L	07/25/2014 2305
Methyl acetate	ND		1	5.0	0.72	ug/L	07/25/2014 2305
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/25/2014 2305
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	07/25/2014 2305
Methylcyclohexane	ND		1	5.0	0.95	ug/L	07/25/2014 2305
Methylene chloride	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Styrene	ND		1	5.0	0.10	ug/L	07/25/2014 2305
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	07/25/2014 2305
Tetrachloroethene	ND		1	5.0	0.40	ug/L	07/25/2014 2305
Toluene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	07/25/2014 2305
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	07/25/2014 2305

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52417-001

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	07/25/2014 2305
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	07/25/2014 2305
Vinyl chloride	ND		1	2.0	0.10	ug/L	07/25/2014 2305
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/25/2014 2305
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		109	70-130				
1,2-Dichloroethane-d4		101	70-130				
Toluene-d8		105	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52417-002

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	109	60-140	07/25/2014 2129
Benzene	50	47		1	95	70-130	07/25/2014 2129
Bromodichloromethane	50	48		1	96	70-130	07/25/2014 2129
Bromoform	50	50		1	100	70-130	07/25/2014 2129
Bromomethane (Methyl bromide)	50	49		1	97	60-140	07/25/2014 2129
2-Butanone (MEK)	100	94		1	94	60-140	07/25/2014 2129
Carbon disulfide	50	46		1	91	60-140	07/25/2014 2129
Carbon tetrachloride	50	46		1	93	70-130	07/25/2014 2129
Chlorobenzene	50	48		1	95	70-130	07/25/2014 2129
Chloroethane	50	49		1	97	42-163	07/25/2014 2129
Chloroform	50	47		1	93	70-130	07/25/2014 2129
Chloromethane (Methyl chloride)	50	47		1	95	60-140	07/25/2014 2129
Cyclohexane	50	45		1	90	70-130	07/25/2014 2129
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	70-130	07/25/2014 2129
Dibromochloromethane	50	49		1	98	70-130	07/25/2014 2129
1,2-Dibromoethane (EDB)	50	49		1	99	70-130	07/25/2014 2129
1,4-Dichlorobenzene	50	47		1	95	70-130	07/25/2014 2129
1,2-Dichlorobenzene	50	48		1	95	70-130	07/25/2014 2129
1,3-Dichlorobenzene	50	48		1	96	70-130	07/25/2014 2129
Dichlorodifluoromethane	50	48		1	96	60-140	07/25/2014 2129
1,2-Dichloroethane	50	47		1	94	70-130	07/25/2014 2129
1,1-Dichloroethane	50	47		1	94	70-130	07/25/2014 2129
trans-1,2-Dichloroethene	50	47		1	94	70-130	07/25/2014 2129
cis-1,2-Dichloroethene	50	47		1	94	70-130	07/25/2014 2129
1,1-Dichloroethene	50	48		1	95	70-130	07/25/2014 2129
1,2-Dichloropropane	50	50		1	99	70-130	07/25/2014 2129
trans-1,3-Dichloropropene	50	51		1	102	70-130	07/25/2014 2129
cis-1,3-Dichloropropene	50	51		1	101	70-130	07/25/2014 2129
Ethylbenzene	50	48		1	96	70-130	07/25/2014 2129
2-Hexanone	100	100		1	105	60-140	07/25/2014 2129
Isopropylbenzene	50	48		1	97	70-130	07/25/2014 2129
Methyl acetate	50	47		1	94	70-130	07/25/2014 2129
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	07/25/2014 2129
4-Methyl-2-pentanone	100	110		1	105	60-140	07/25/2014 2129
Methylcyclohexane	50	48		1	97	70-130	07/25/2014 2129
Methylene chloride	50	46		1	93	70-130	07/25/2014 2129
Styrene	50	50		1	99	70-130	07/25/2014 2129
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	07/25/2014 2129
Tetrachloroethene	50	48		1	95	70-130	07/25/2014 2129
Toluene	50	48		1	96	70-130	07/25/2014 2129
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	103	70-130	07/25/2014 2129
1,2,4-Trichlorobenzene	50	46		1	92	70-130	07/25/2014 2129
1,1,2-Trichloroethane	50	49		1	97	70-130	07/25/2014 2129
1,1,1-Trichloroethane	50	45		1	90	70-130	07/25/2014 2129

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52417-002

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	07/25/2014 2129
Trichlorofluoromethane	50	42		1	85	70-130	07/25/2014 2129
Vinyl chloride	50	46		1	92	70-130	07/25/2014 2129
Xylenes (total)	100	98		1	98	70-130	07/25/2014 2129
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		111	70-130				
1,2-Dichloroethane-d4		98	70-130				
Toluene-d8		107	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52417-003

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	95		1	95	14	60-140	20	07/25/2014 2153
Benzene	50	48		1	96	1.4	70-130	20	07/25/2014 2153
Bromodichloromethane	50	49		1	98	2.6	70-130	20	07/25/2014 2153
Bromoform	50	50		1	100	0.63	70-130	20	07/25/2014 2153
Bromomethane (Methyl bromide)	50	51		1	103	5.4	60-140	20	07/25/2014 2153
2-Butanone (MEK)	100	80		1	80	16	60-140	20	07/25/2014 2153
Carbon disulfide	50	47		1	94	3.1	60-140	20	07/25/2014 2153
Carbon tetrachloride	50	48		1	96	3.8	70-130	20	07/25/2014 2153
Chlorobenzene	50	49		1	97	2.1	70-130	20	07/25/2014 2153
Chloroethane	50	51		1	102	4.5	42-163	20	07/25/2014 2153
Chloroform	50	47		1	94	0.57	70-130	20	07/25/2014 2153
Chloromethane (Methyl chloride)	50	50		1	100	5.8	60-140	20	07/25/2014 2153
Cyclohexane	50	43		1	86	4.7	70-130	20	07/25/2014 2153
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	101	4.0	70-130	20	07/25/2014 2153
Dibromochloromethane	50	50		1	99	0.97	70-130	20	07/25/2014 2153
1,2-Dibromoethane (EDB)	50	50		1	100	1.0	70-130	20	07/25/2014 2153
1,4-Dichlorobenzene	50	48		1	97	1.9	70-130	20	07/25/2014 2153
1,2-Dichlorobenzene	50	49		1	98	2.8	70-130	20	07/25/2014 2153
1,3-Dichlorobenzene	50	49		1	98	1.4	70-130	20	07/25/2014 2153
Dichlorodifluoromethane	50	51		1	101	5.2	60-140	20	07/25/2014 2153
1,2-Dichloroethane	50	46		1	91	3.7	70-130	20	07/25/2014 2153
1,1-Dichloroethane	50	47		1	95	0.75	70-130	20	07/25/2014 2153
trans-1,2-Dichloroethene	50	47		1	93	0.57	70-130	20	07/25/2014 2153
cis-1,2-Dichloroethene	50	48		1	96	1.3	70-130	20	07/25/2014 2153
1,1-Dichloroethene	50	48		1	96	0.96	70-130	20	07/25/2014 2153
1,2-Dichloropropane	50	48		1	96	3.4	70-130	20	07/25/2014 2153
trans-1,3-Dichloropropene	50	51		1	103	0.68	70-130	20	07/25/2014 2153
cis-1,3-Dichloropropene	50	52		1	104	2.4	70-130	20	07/25/2014 2153
Ethylbenzene	50	49		1	99	2.7	70-130	20	07/25/2014 2153
2-Hexanone	100	110		1	107	1.6	60-140	20	07/25/2014 2153
Isopropylbenzene	50	51		1	102	4.9	70-130	20	07/25/2014 2153
Methyl acetate	50	39		1	78	19	70-130	20	07/25/2014 2153
Methyl tertiary butyl ether (MTBE)	50	48		1	97	1.9	70-130	20	07/25/2014 2153
4-Methyl-2-pentanone	100	110		1	108	2.6	60-140	20	07/25/2014 2153
Methylcyclohexane	50	50		1	100	3.4	70-130	20	07/25/2014 2153
Methylene chloride	50	46		1	93	0.27	70-130	20	07/25/2014 2153
Styrene	50	51		1	102	2.3	70-130	20	07/25/2014 2153
1,1,2,2-Tetrachloroethane	50	51		1	101	3.8	70-130	20	07/25/2014 2153
Tetrachloroethene	50	49		1	97	1.9	70-130	20	07/25/2014 2153
Toluene	50	50		1	100	4.2	70-130	20	07/25/2014 2153
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	2.1	70-130	20	07/25/2014 2153
1,2,4-Trichlorobenzene	50	48		1	95	3.6	70-130	20	07/25/2014 2153
1,1,2-Trichloroethane	50	49		1	98	1.4	70-130	20	07/25/2014 2153
1,1,1-Trichloroethane	50	47		1	95	5.5	70-130	20	07/25/2014 2153

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52417-003

Matrix: Aqueous

Batch: 52417

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	49		1	98	3.7	70-130	20	07/25/2014 2153
Trichlorofluoromethane	50	46		1	92	8.1	70-130	20	07/25/2014 2153
Vinyl chloride	50	47		1	95	2.6	70-130	20	07/25/2014 2153
Xylenes (total)	100	100		1	101	2.9	70-130	20	07/25/2014 2153
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		112	70-130						
1,2-Dichloroethane-d4		95	70-130						
Toluene-d8		109	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111
 www.shealylab.com

Chain of Custody Record



Number **35440**

Client Accom	Report to Contact SCOTT ROSS	Sampler (Printed Name) JAMES CAMPBELL	Quote No.
Address	Telephone No. / Fax No. / Email 803 2019662	Waybill No.	Page 1 of 1

City CHANDLER SC	Zip Code	Preservative	Number of Containers
Project Name New Branch	State	1. Unpres. 4. HNO3 7. NaOH	Bottles (See instructions on back)
Project Number 60318382.5	P.O. Number	2. NaOH/ZnA 5. HCL	Preservative
Sample ID / Description (Containers for each sample may be combined on one line)	Date	3. H2SO4 6. Na Thio.	

Analysis	Vocs (sc)	3	3				
Matrix	G Grab	C Composite	G CWI	W WW	S S	Other	
Date	Time	Date	Time	Date	Time	Date	Time
7/24/14	0958	7/24/14	0958	7/24/14	0958	7/24/14	0958
DUP-1							



Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	QC Requirements (Specify)	Possible Hazard Identification
<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Please Specify) 2-1 hr	<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Discard by Lab	1. Received by SAKER Date 7/24/14 Time 1635	<input checked="" type="checkbox"/> Non-hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
2. Relinquished by James Campbell Date 7/24/14 Time 17:28	2. Received by SAKER Date 7/24/14 Time 1635	3. Received by	
3. Relinquished by SAKER Date 7/24/14 Time 17:28	3. Received by		
4. Relinquished by	4. Laboratory Received by SAKER Date 7/24/14 Time 1728		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: MLM / 07/24/14 Lot #: SC24056

Means of receipt: <input checked="" type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>150159</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present > "pea-size" (½" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>MLM</u> Verified by: <u>MLM</u> Date: <u>7/24/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH14053 were collected on August 13-14, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308.3**

Lot Number: **PH14053**

Date Completed: **08/18/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH14053 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH14053

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH14053

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-47-41	Aqueous	08/13/2014 0940	08/14/2014
002	TMW-49-45	Aqueous	08/13/2014 1230	08/14/2014
003	TMW-51-35	Aqueous	08/13/2014 1245	08/14/2014
004	TMW-52-30	Aqueous	08/13/2014 1545	08/14/2014
005	TRIP BLANK	Aqueous	08/13/2014	08/14/2014

(5 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH14053

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-47-41	Aqueous	Acetone	8260B	7.6	J	ug/L	5
001	TMW-47-41	Aqueous	2-Butanone (MEK)	8260B	1.8	J	ug/L	5
001	TMW-47-41	Aqueous	cis-1,2-Dichloroethene	8260B	12		ug/L	5
001	TMW-47-41	Aqueous	Trichloroethene	8260B	160		ug/L	6
002	TMW-49-45	Aqueous	Benzene	8260B	0.25	J	ug/L	7
002	TMW-49-45	Aqueous	cis-1,2-Dichloroethene	8260B	39		ug/L	7
002	TMW-49-45	Aqueous	Trichloroethene	8260B	23		ug/L	8
003	TMW-51-35	Aqueous	cis-1,2-Dichloroethene	8260B	0.37	J	ug/L	9
003	TMW-51-35	Aqueous	Styrene	8260B	0.43	J	ug/L	9
004	TMW-52-30	Aqueous	Trichloroethene	8260B	12		ug/L	12

(10 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-001
Description: TMW-47-41	Matrix: Aqueous
Date Sampled: 08/13/2014 0940	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2023	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	7.6	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	1.8	J	10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	12		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-001
Description: TMW-47-41	Matrix: Aqueous
Date Sampled: 08/13/2014 0940	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2023	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	160		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-002
Description: TMW-49-45	Matrix: Aqueous
Date Sampled: 08/13/2014 1230	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2047	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.25	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	39		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-002
Description: TMW-49-45	Matrix: Aqueous
Date Sampled: 08/13/2014 1230	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2047	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	23		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-003
Description: TMW-51-35	Matrix: Aqueous
Date Sampled: 08/13/2014 1245	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2110	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.37	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.43	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-003
Description: TMW-51-35	Matrix: Aqueous
Date Sampled: 08/13/2014 1245	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2110	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PH14053-004**

 Description: **TMW-52-30**

 Matrix: **Aqueous**

 Date Sampled: **08/13/2014 1545**

 Date Received: **08/14/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2133	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-004
Description: TMW-52-30	Matrix: Aqueous
Date Sampled: 08/13/2014 1545	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/17/2014 2133	PMM2		54170

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	12		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 08/13/2014	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/15/2014 1315	EH1		54119

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH14053-005
Description: TRIP BLANK	Matrix: Aqueous
Date Sampled: 08/13/2014	
Date Received: 08/14/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/15/2014 1315	EH1		54119

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54119-001

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/15/2014 1205
Benzene	ND		1	5.0	0.20	ug/L	08/15/2014 1205
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Bromoform	3.3	J	1	5.0	0.40	ug/L	08/15/2014 1205
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/15/2014 1205
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/15/2014 1205
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/15/2014 1205
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/15/2014 1205
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Chloroethane	ND		1	5.0	0.50	ug/L	08/15/2014 1205
Chloroform	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/15/2014 1205
Cyclohexane	ND		1	5.0	0.98	ug/L	08/15/2014 1205
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/15/2014 1205
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/15/2014 1205
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/15/2014 1205
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/15/2014 1205
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/15/2014 1205
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/15/2014 1205
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/15/2014 1205
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/15/2014 1205
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/15/2014 1205
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
2-Hexanone	ND		1	10	1.0	ug/L	08/15/2014 1205
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/15/2014 1205
Methyl acetate	ND		1	5.0	0.72	ug/L	08/15/2014 1205
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/15/2014 1205
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/15/2014 1205
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/15/2014 1205
Methylene chloride	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Styrene	ND		1	5.0	0.10	ug/L	08/15/2014 1205
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/15/2014 1205
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/15/2014 1205
Toluene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/15/2014 1205
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/15/2014 1205

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54119-001

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/15/2014 1205
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/15/2014 1205
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/15/2014 1205
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/15/2014 1205
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		91	70-130				
1,2-Dichloroethane-d4		95	70-130				
Toluene-d8		93	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54119-002

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	114	60-140	08/15/2014 1036
Benzene	50	56		1	111	70-130	08/15/2014 1036
Bromodichloromethane	50	56		1	112	70-130	08/15/2014 1036
Bromoform	50	49		1	97	70-130	08/15/2014 1036
Bromomethane (Methyl bromide)	50	50		1	100	60-140	08/15/2014 1036
2-Butanone (MEK)	100	110		1	108	60-140	08/15/2014 1036
Carbon disulfide	50	60		1	121	60-140	08/15/2014 1036
Carbon tetrachloride	50	57		1	114	70-130	08/15/2014 1036
Chlorobenzene	50	54		1	108	70-130	08/15/2014 1036
Chloroethane	50	58		1	116	42-163	08/15/2014 1036
Chloroform	50	53		1	107	70-130	08/15/2014 1036
Chloromethane (Methyl chloride)	50	55		1	110	60-140	08/15/2014 1036
Cyclohexane	50	53		1	107	70-130	08/15/2014 1036
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	101	70-130	08/15/2014 1036
Dibromochloromethane	50	50		1	99	70-130	08/15/2014 1036
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	08/15/2014 1036
1,4-Dichlorobenzene	50	53		1	105	70-130	08/15/2014 1036
1,3-Dichlorobenzene	50	55		1	110	70-130	08/15/2014 1036
1,2-Dichlorobenzene	50	56		1	112	70-130	08/15/2014 1036
Dichlorodifluoromethane	50	65		1	130	60-140	08/15/2014 1036
1,2-Dichloroethane	50	54		1	108	70-130	08/15/2014 1036
1,1-Dichloroethane	50	55		1	109	70-130	08/15/2014 1036
trans-1,2-Dichloroethene	50	55		1	110	70-130	08/15/2014 1036
cis-1,2-Dichloroethene	50	55		1	110	70-130	08/15/2014 1036
1,1-Dichloroethene	50	57		1	114	70-130	08/15/2014 1036
1,2-Dichloropropane	50	55		1	110	70-130	08/15/2014 1036
trans-1,3-Dichloropropene	50	49		1	98	70-130	08/15/2014 1036
cis-1,3-Dichloropropene	50	50		1	99	70-130	08/15/2014 1036
Ethylbenzene	50	60		1	120	70-130	08/15/2014 1036
2-Hexanone	100	110		1	110	60-140	08/15/2014 1036
Isopropylbenzene	50	56		1	111	70-130	08/15/2014 1036
Methyl acetate	50	49		1	98	70-130	08/15/2014 1036
Methyl tertiary butyl ether (MTBE)	50	55		1	110	70-130	08/15/2014 1036
4-Methyl-2-pentanone	100	110		1	105	60-140	08/15/2014 1036
Methylcyclohexane	50	55		1	110	70-130	08/15/2014 1036
Methylene chloride	50	51		1	102	70-130	08/15/2014 1036
Styrene	50	51		1	103	70-130	08/15/2014 1036
1,1,2,2-Tetrachloroethane	50	57		1	114	70-130	08/15/2014 1036
Tetrachloroethene	50	55		1	109	70-130	08/15/2014 1036
Toluene	50	51		1	101	70-130	08/15/2014 1036
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	117	70-130	08/15/2014 1036
1,2,4-Trichlorobenzene	50	49		1	97	70-130	08/15/2014 1036
1,1,2-Trichloroethane	50	53		1	106	70-130	08/15/2014 1036
1,1,1-Trichloroethane	50	57		1	114	70-130	08/15/2014 1036

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54119-002

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	56		1	113	70-130	08/15/2014 1036
Trichlorofluoromethane	50	52		1	105	70-130	08/15/2014 1036
Vinyl chloride	50	56		1	111	70-130	08/15/2014 1036
Xylenes (total)	100	110		1	108	70-130	08/15/2014 1036
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		88	70-130				
1,2-Dichloroethane-d4		89	70-130				
Toluene-d8		99	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54119-003

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	121	5.9	60-140	20	08/15/2014 1058
Benzene	50	55		1	110	0.77	70-130	20	08/15/2014 1058
Bromodichloromethane	50	56		1	112	0.32	70-130	20	08/15/2014 1058
Bromoform	50	48		1	96	1.6	70-130	20	08/15/2014 1058
Bromomethane (Methyl bromide)	50	51		1	101	1.7	60-140	20	08/15/2014 1058
2-Butanone (MEK)	100	110		1	111	3.0	60-140	20	08/15/2014 1058
Carbon disulfide	50	59		1	119	1.7	60-140	20	08/15/2014 1058
Carbon tetrachloride	50	56		1	113	1.3	70-130	20	08/15/2014 1058
Chlorobenzene	50	54		1	107	1.1	70-130	20	08/15/2014 1058
Chloroethane	50	56		1	111	4.1	42-163	20	08/15/2014 1058
Chloroform	50	53		1	106	0.78	70-130	20	08/15/2014 1058
Chloromethane (Methyl chloride)	50	54		1	108	1.6	60-140	20	08/15/2014 1058
Cyclohexane	50	52		1	105	1.8	70-130	20	08/15/2014 1058
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	99	1.7	70-130	20	08/15/2014 1058
Dibromochloromethane	50	49		1	99	0.90	70-130	20	08/15/2014 1058
1,2-Dibromoethane (EDB)	50	52		1	103	0.73	70-130	20	08/15/2014 1058
1,4-Dichlorobenzene	50	54		1	108	1.9	70-130	20	08/15/2014 1058
1,3-Dichlorobenzene	50	56		1	112	1.9	70-130	20	08/15/2014 1058
1,2-Dichlorobenzene	50	56		1	111	0.49	70-130	20	08/15/2014 1058
Dichlorodifluoromethane	50	63		1	126	2.6	60-140	20	08/15/2014 1058
1,2-Dichloroethane	50	53		1	105	2.3	70-130	20	08/15/2014 1058
1,1-Dichloroethane	50	54		1	108	1.0	70-130	20	08/15/2014 1058
trans-1,2-Dichloroethene	50	55		1	109	0.28	70-130	20	08/15/2014 1058
cis-1,2-Dichloroethene	50	55		1	109	0.32	70-130	20	08/15/2014 1058
1,1-Dichloroethene	50	56		1	112	2.1	70-130	20	08/15/2014 1058
1,2-Dichloropropane	50	55		1	109	0.78	70-130	20	08/15/2014 1058
trans-1,3-Dichloropropene	50	49		1	98	0.38	70-130	20	08/15/2014 1058
cis-1,3-Dichloropropene	50	50		1	99	0.25	70-130	20	08/15/2014 1058
Ethylbenzene	50	58		1	117	3.3	70-130	20	08/15/2014 1058
2-Hexanone	100	110		1	110	0.51	60-140	20	08/15/2014 1058
Isopropylbenzene	50	55		1	109	1.7	70-130	20	08/15/2014 1058
Methyl acetate	50	50		1	100	2.0	70-130	20	08/15/2014 1058
Methyl tertiary butyl ether (MTBE)	50	53		1	106	3.7	70-130	20	08/15/2014 1058
4-Methyl-2-pentanone	100	100		1	104	0.56	60-140	20	08/15/2014 1058
Methylcyclohexane	50	54		1	108	1.7	70-130	20	08/15/2014 1058
Methylene chloride	50	50		1	101	1.4	70-130	20	08/15/2014 1058
Styrene	50	51		1	102	0.89	70-130	20	08/15/2014 1058
1,1,2,2-Tetrachloroethane	50	55		1	109	4.0	70-130	20	08/15/2014 1058
Tetrachloroethene	50	54		1	107	1.8	70-130	20	08/15/2014 1058
Toluene	50	51		1	103	1.4	70-130	20	08/15/2014 1058
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	116	0.93	70-130	20	08/15/2014 1058
1,2,4-Trichlorobenzene	50	49		1	98	0.83	70-130	20	08/15/2014 1058
1,1,2-Trichloroethane	50	53		1	105	0.90	70-130	20	08/15/2014 1058
1,1,1-Trichloroethane	50	57		1	114	0.34	70-130	20	08/15/2014 1058

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54119-003

Matrix: Aqueous

Batch: 54119

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	57		1	114	1.2	70-130	20	08/15/2014 1058
Trichlorofluoromethane	50	54		1	109	3.7	70-130	20	08/15/2014 1058
Vinyl chloride	50	55		1	110	1.5	70-130	20	08/15/2014 1058
Xylenes (total)	100	110		1	106	2.6	70-130	20	08/15/2014 1058
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		92	70-130						
1,2-Dichloroethane-d4		89	70-130						
Toluene-d8		101	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54170-001

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/17/2014 1344
Benzene	ND		1	5.0	0.20	ug/L	08/17/2014 1344
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/17/2014 1344
Bromoform	ND		1	5.0	0.40	ug/L	08/17/2014 1344
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/17/2014 1344
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/17/2014 1344
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/17/2014 1344
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/17/2014 1344
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
Chloroethane	ND		1	5.0	0.50	ug/L	08/17/2014 1344
Chloroform	ND		1	5.0	1.7	ug/L	08/17/2014 1344
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/17/2014 1344
Cyclohexane	ND		1	5.0	0.98	ug/L	08/17/2014 1344
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/17/2014 1344
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/17/2014 1344
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/17/2014 1344
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/17/2014 1344
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/17/2014 1344
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/17/2014 1344
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/17/2014 1344
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/17/2014 1344
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/17/2014 1344
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/17/2014 1344
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/17/2014 1344
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/17/2014 1344
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
2-Hexanone	ND		1	10	1.0	ug/L	08/17/2014 1344
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/17/2014 1344
Methyl acetate	ND		1	5.0	0.72	ug/L	08/17/2014 1344
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/17/2014 1344
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/17/2014 1344
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/17/2014 1344
Methylene chloride	ND		1	5.0	1.7	ug/L	08/17/2014 1344
Styrene	ND		1	5.0	0.10	ug/L	08/17/2014 1344
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/17/2014 1344
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/17/2014 1344
Toluene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/17/2014 1344
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/17/2014 1344
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/17/2014 1344
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/17/2014 1344

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54170-001

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/17/2014 1344
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/17/2014 1344
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/17/2014 1344
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/17/2014 1344

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54170-002

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	89		1	89	60-140	08/17/2014 1213
Benzene	50	46		1	92	70-130	08/17/2014 1213
Bromodichloromethane	50	49		1	97	70-130	08/17/2014 1213
Bromoform	50	52		1	104	70-130	08/17/2014 1213
Bromomethane (Methyl bromide)	50	52		1	105	60-140	08/17/2014 1213
2-Butanone (MEK)	100	92		1	92	60-140	08/17/2014 1213
Carbon disulfide	50	48		1	95	60-140	08/17/2014 1213
Carbon tetrachloride	50	48		1	96	70-130	08/17/2014 1213
Chlorobenzene	50	47		1	95	70-130	08/17/2014 1213
Chloroethane	50	45		1	91	42-163	08/17/2014 1213
Chloroform	50	46		1	92	70-130	08/17/2014 1213
Chloromethane (Methyl chloride)	50	50		1	100	60-140	08/17/2014 1213
Cyclohexane	50	47		1	94	70-130	08/17/2014 1213
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	08/17/2014 1213
Dibromochloromethane	50	50		1	100	70-130	08/17/2014 1213
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	08/17/2014 1213
1,2-Dichlorobenzene	50	49		1	97	70-130	08/17/2014 1213
1,3-Dichlorobenzene	50	48		1	96	70-130	08/17/2014 1213
1,4-Dichlorobenzene	50	48		1	96	70-130	08/17/2014 1213
Dichlorodifluoromethane	50	50		1	100	60-140	08/17/2014 1213
1,1-Dichloroethane	50	46		1	91	70-130	08/17/2014 1213
1,2-Dichloroethane	50	46		1	92	70-130	08/17/2014 1213
1,1-Dichloroethene	50	47		1	93	70-130	08/17/2014 1213
cis-1,2-Dichloroethene	50	47		1	93	70-130	08/17/2014 1213
trans-1,2-Dichloroethene	50	46		1	91	70-130	08/17/2014 1213
1,2-Dichloropropane	50	46		1	91	70-130	08/17/2014 1213
trans-1,3-Dichloropropene	50	52		1	103	70-130	08/17/2014 1213
cis-1,3-Dichloropropene	50	49		1	99	70-130	08/17/2014 1213
Ethylbenzene	50	47		1	94	70-130	08/17/2014 1213
2-Hexanone	100	96		1	96	60-140	08/17/2014 1213
Isopropylbenzene	50	48		1	95	70-130	08/17/2014 1213
Methyl acetate	50	37		1	74	70-130	08/17/2014 1213
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	08/17/2014 1213
4-Methyl-2-pentanone	100	91		1	91	60-140	08/17/2014 1213
Methylcyclohexane	50	47		1	94	70-130	08/17/2014 1213
Methylene chloride	50	45		1	91	70-130	08/17/2014 1213
Styrene	50	50		1	100	70-130	08/17/2014 1213
1,1,2,2-Tetrachloroethane	50	48		1	96	70-130	08/17/2014 1213
Tetrachloroethene	50	47		1	94	70-130	08/17/2014 1213
Toluene	50	46		1	92	70-130	08/17/2014 1213
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	101	70-130	08/17/2014 1213
1,2,4-Trichlorobenzene	50	50		1	100	70-130	08/17/2014 1213
1,1,1-Trichloroethane	50	47		1	94	70-130	08/17/2014 1213
1,1,2-Trichloroethane	50	47		1	93	70-130	08/17/2014 1213

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54170-002

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	93	70-130	08/17/2014 1213
Trichlorofluoromethane	50	45		1	90	70-130	08/17/2014 1213
Vinyl chloride	50	46		1	92	70-130	08/17/2014 1213
Xylenes (total)	100	98		1	98	70-130	08/17/2014 1213
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		90			70-130		
1,2-Dichloroethane-d4		85			70-130		
Toluene-d8		90			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54170-003

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	90		1	90	1.6	60-140	20	08/17/2014 1236
Benzene	50	46		1	92	0.26	70-130	20	08/17/2014 1236
Bromodichloromethane	50	48		1	97	0.32	70-130	20	08/17/2014 1236
Bromoform	50	52		1	104	0.21	70-130	20	08/17/2014 1236
Bromomethane (Methyl bromide)	50	54		1	107	2.5	60-140	20	08/17/2014 1236
2-Butanone (MEK)	100	95		1	95	3.0	60-140	20	08/17/2014 1236
Carbon disulfide	50	46		1	92	3.2	60-140	20	08/17/2014 1236
Carbon tetrachloride	50	47		1	95	1.3	70-130	20	08/17/2014 1236
Chlorobenzene	50	47		1	95	0.038	70-130	20	08/17/2014 1236
Chloroethane	50	44		1	88	3.2	42-163	20	08/17/2014 1236
Chloroform	50	46		1	92	0.16	70-130	20	08/17/2014 1236
Chloromethane (Methyl chloride)	50	48		1	97	3.1	60-140	20	08/17/2014 1236
Cyclohexane	50	47		1	94	0.85	70-130	20	08/17/2014 1236
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	0.35	70-130	20	08/17/2014 1236
Dibromochloromethane	50	50		1	100	0.10	70-130	20	08/17/2014 1236
1,2-Dibromoethane (EDB)	50	48		1	96	0.68	70-130	20	08/17/2014 1236
1,2-Dichlorobenzene	50	49		1	98	0.15	70-130	20	08/17/2014 1236
1,3-Dichlorobenzene	50	48		1	95	1.1	70-130	20	08/17/2014 1236
1,4-Dichlorobenzene	50	47		1	95	1.1	70-130	20	08/17/2014 1236
Dichlorodifluoromethane	50	50		1	99	0.23	60-140	20	08/17/2014 1236
1,1-Dichloroethane	50	45		1	90	1.0	70-130	20	08/17/2014 1236
1,2-Dichloroethane	50	46		1	92	0.63	70-130	20	08/17/2014 1236
1,1-Dichloroethene	50	46		1	92	1.2	70-130	20	08/17/2014 1236
cis-1,2-Dichloroethene	50	46		1	92	1.8	70-130	20	08/17/2014 1236
trans-1,2-Dichloroethene	50	46		1	92	1.4	70-130	20	08/17/2014 1236
1,2-Dichloropropane	50	46		1	92	0.83	70-130	20	08/17/2014 1236
trans-1,3-Dichloropropene	50	51		1	102	0.76	70-130	20	08/17/2014 1236
cis-1,3-Dichloropropene	50	50		1	99	0.85	70-130	20	08/17/2014 1236
Ethylbenzene	50	47		1	94	0.31	70-130	20	08/17/2014 1236
2-Hexanone	100	97		1	97	1.3	60-140	20	08/17/2014 1236
Isopropylbenzene	50	48		1	95	0.042	70-130	20	08/17/2014 1236
Methyl acetate	50	37		1	74	0.53	70-130	20	08/17/2014 1236
Methyl tertiary butyl ether (MTBE)	50	47		1	95	1.3	70-130	20	08/17/2014 1236
4-Methyl-2-pentanone	100	93		1	93	1.6	60-140	20	08/17/2014 1236
Methylcyclohexane	50	47		1	94	0.085	70-130	20	08/17/2014 1236
Methylene chloride	50	44		1	88	2.4	70-130	20	08/17/2014 1236
Styrene	50	50		1	100	0.37	70-130	20	08/17/2014 1236
1,1,2,2-Tetrachloroethane	50	48		1	96	0.32	70-130	20	08/17/2014 1236
Tetrachloroethene	50	47		1	95	0.16	70-130	20	08/17/2014 1236
Toluene	50	47		1	93	1.5	70-130	20	08/17/2014 1236
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	1.2	70-130	20	08/17/2014 1236
1,2,4-Trichlorobenzene	50	50		1	100	0.48	70-130	20	08/17/2014 1236
1,1,1-Trichloroethane	50	46		1	92	1.5	70-130	20	08/17/2014 1236
1,1,2-Trichloroethane	50	47		1	94	0.17	70-130	20	08/17/2014 1236

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54170-003

Matrix: Aqueous

Batch: 54170

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	93	0.12	70-130	20	08/17/2014 1236
Trichlorofluoromethane	50	46		1	91	1.5	70-130	20	08/17/2014 1236
Vinyl chloride	50	44		1	89	4.0	70-130	20	08/17/2014 1236
Xylenes (total)	100	98		1	98	0.20	70-130	20	08/17/2014 1236
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		91	70-130						
1,2-Dichloroethane-d4		87	70-130						
Toluene-d8		94	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record



Number **35677**

Client AECOM	Report to Contact Scott Ross	Sampler (Printed Name) Justin Butler	Quote No.
Address 3820 Faber Place, Suite 300		Page 1 of 1	
City/State/Zip Code North Charleston SC 29405		Number of Containers	
Project Name Shakespeare Newberry		Bottle (See instructions on back) Preservative	
Project Number 60328308.3		PH14053	
Sample ID / Description (Containers for each sample may be combined on one line)			
TMW-47-41	Date: 8/13/14 Time: 0940	X	
TMW-49-45	Date: 8/13/14 Time: 1230	X	
TMW-51-35	Date: 8/14/14 Time: 1245	X	
TMW-52-30	Date: 8/14/14 Time: 1645	X	
TB	Date: 8/13/14 Time:	X	

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification
<input type="checkbox"/> Standard <input type="checkbox"/> Fast (Please Specify)	<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab	<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown
1. Relinquished by / Sampler <i>Justin Butler</i>	Date: 8/14/14 Time: 1630	1. Received by <i>Charles K. Sublett</i>
2. Relinquished by <i>Charles K. Sublett</i>	Date: 8/14/14 Time: 1740	2. Received by
3. Relinquished by	Date: Time:	3. Received by
4. Relinquished by	Date: Time:	4. Laboratory Received by <i>Kelly W.R.</i>

LAB USE ONLY Received on Ice (check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack	Receipt Temp. 5.9 °C	Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N
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Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: REC.com Cooler Inspected by/date: mcmm / 08/11/14 Lot #: PH14053

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>1067 / 5.3 / 5.4 °C</u> / / / °C / / / °C / / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>#3</u> IR Gun Correction Factor: <u>0.1 °C</u>		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mcmm</u> Verified by: <u>mcmm</u> Date: <u>8/14/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH15073 were collected on August 15, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare Composites**

Project Number: **60328308**

Lot Number: **PH15073**

Date Completed: **08/22/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH15073 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH15073

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH15073

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-54-30	Aqueous	08/15/2014 0930	08/15/2014
002	TMW-58-30	Aqueous	08/15/2014 1500	08/15/2014
003	TB	Aqueous	08/15/2014	08/15/2014

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH15073

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-54-30	Aqueous	cis-1,2-Dichloroethene	8260B	0.87	J	ug/L	5
001	TMW-54-30	Aqueous	Trichloroethene	8260B	140		ug/L	6
002	TMW-58-30	Aqueous	Styrene	8260B	0.22	J	ug/L	7

(3 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH15073-001
Description: TMW-54-30	Matrix: Aqueous
Date Sampled: 08/15/2014 0930	
Date Received: 08/15/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/20/2014 1608	EH1		54454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	2
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	0.87	J	5.0	0.20	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH15073-001
Description: TMW-54-30	Matrix: Aqueous
Date Sampled: 08/15/2014 0930	
Date Received: 08/15/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/20/2014 1608	EH1		54454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	140		5.0	0.30	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		124	70-130
Bromofluorobenzene		118	70-130
Toluene-d8		122	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH15073-002
Description: TMW-58-30	Matrix: Aqueous
Date Sampled: 08/15/2014 1500	
Date Received: 08/15/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/19/2014 1812	EH1		54330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.22	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH15073-002
Description: TMW-58-30	Matrix: Aqueous
Date Sampled: 08/15/2014 1500	
Date Received: 08/15/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/19/2014 1812	EH1		54330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **AECOM**

Laboratory ID: **PH15073-003**

Description: **TB**

Matrix: **Aqueous**

Date Sampled: **08/15/2014**

Date Received: **08/15/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/19/2014 1119	EH1		54330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH15073-003
Description: TB	Matrix: Aqueous
Date Sampled: 08/15/2014	
Date Received: 08/15/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/19/2014 1119	EH1		54330

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54330-001

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/19/2014 1055
Benzene	ND		1	5.0	0.20	ug/L	08/19/2014 1055
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Bromoform	ND		1	5.0	0.40	ug/L	08/19/2014 1055
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/19/2014 1055
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/19/2014 1055
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/19/2014 1055
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/19/2014 1055
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Chloroethane	ND		1	5.0	0.50	ug/L	08/19/2014 1055
Chloroform	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/19/2014 1055
Cyclohexane	ND		1	5.0	0.98	ug/L	08/19/2014 1055
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/19/2014 1055
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/19/2014 1055
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/19/2014 1055
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/19/2014 1055
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/19/2014 1055
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/19/2014 1055
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/19/2014 1055
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/19/2014 1055
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/19/2014 1055
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
2-Hexanone	ND		1	10	1.0	ug/L	08/19/2014 1055
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/19/2014 1055
Methyl acetate	ND		1	5.0	0.72	ug/L	08/19/2014 1055
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/19/2014 1055
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/19/2014 1055
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/19/2014 1055
Methylene chloride	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Styrene	ND		1	5.0	0.10	ug/L	08/19/2014 1055
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/19/2014 1055
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/19/2014 1055
Toluene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/19/2014 1055
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/19/2014 1055

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54330-001

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/19/2014 1055
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/19/2014 1055
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/19/2014 1055
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/19/2014 1055
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		97	70-130				
1,2-Dichloroethane-d4		101	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54330-002

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	111	60-140	08/19/2014 0924
Benzene	50	50		1	100	70-130	08/19/2014 0924
Bromodichloromethane	50	52		1	104	70-130	08/19/2014 0924
Bromoform	50	55		1	111	70-130	08/19/2014 0924
Bromomethane (Methyl bromide)	50	45		1	90	60-140	08/19/2014 0924
2-Butanone (MEK)	100	99		1	99	60-140	08/19/2014 0924
Carbon disulfide	50	52		1	104	60-140	08/19/2014 0924
Carbon tetrachloride	50	52		1	104	70-130	08/19/2014 0924
Chlorobenzene	50	50		1	101	70-130	08/19/2014 0924
Chloroethane	50	47		1	94	42-163	08/19/2014 0924
Chloroform	50	50		1	100	70-130	08/19/2014 0924
Chloromethane (Methyl chloride)	50	50		1	101	60-140	08/19/2014 0924
Cyclohexane	50	48		1	96	70-130	08/19/2014 0924
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	70-130	08/19/2014 0924
Dibromochloromethane	50	54		1	108	70-130	08/19/2014 0924
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	08/19/2014 0924
1,4-Dichlorobenzene	50	51		1	102	70-130	08/19/2014 0924
1,3-Dichlorobenzene	50	51		1	103	70-130	08/19/2014 0924
1,2-Dichlorobenzene	50	51		1	103	70-130	08/19/2014 0924
Dichlorodifluoromethane	50	51		1	102	60-140	08/19/2014 0924
1,2-Dichloroethane	50	50		1	99	70-130	08/19/2014 0924
1,1-Dichloroethane	50	51		1	102	70-130	08/19/2014 0924
trans-1,2-Dichloroethene	50	51		1	102	70-130	08/19/2014 0924
cis-1,2-Dichloroethene	50	50		1	101	70-130	08/19/2014 0924
1,1-Dichloroethene	50	53		1	106	70-130	08/19/2014 0924
1,2-Dichloropropane	50	50		1	100	70-130	08/19/2014 0924
trans-1,3-Dichloropropene	50	54		1	108	70-130	08/19/2014 0924
cis-1,3-Dichloropropene	50	53		1	107	70-130	08/19/2014 0924
Ethylbenzene	50	51		1	102	70-130	08/19/2014 0924
2-Hexanone	100	99		1	99	60-140	08/19/2014 0924
Isopropylbenzene	50	51		1	102	70-130	08/19/2014 0924
Methyl acetate	50	35		1	71	70-130	08/19/2014 0924
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	08/19/2014 0924
4-Methyl-2-pentanone	100	99		1	99	60-140	08/19/2014 0924
Methylcyclohexane	50	52		1	104	70-130	08/19/2014 0924
Methylene chloride	50	49		1	99	70-130	08/19/2014 0924
Styrene	50	53		1	106	70-130	08/19/2014 0924
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	08/19/2014 0924
Tetrachloroethene	50	50		1	100	70-130	08/19/2014 0924
Toluene	50	50		1	101	70-130	08/19/2014 0924
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	62		1	125	70-130	08/19/2014 0924
1,2,4-Trichlorobenzene	50	52		1	105	70-130	08/19/2014 0924
1,1,2-Trichloroethane	50	50		1	101	70-130	08/19/2014 0924
1,1,1-Trichloroethane	50	51		1	101	70-130	08/19/2014 0924

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54330-002

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	08/19/2014 0924
Trichlorofluoromethane	50	49		1	99	70-130	08/19/2014 0924
Vinyl chloride	50	49		1	99	70-130	08/19/2014 0924
Xylenes (total)	100	100		1	102	70-130	08/19/2014 0924
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	70-130				
1,2-Dichloroethane-d4		97	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH15073-001MS

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	530		5	106	60-140	08/19/2014 1900
Benzene	ND	250	260		5	106	70-130	08/19/2014 1900
Bromodichloromethane	ND	250	270		5	108	71-143	08/19/2014 1900
Bromoform	ND	250	280		5	113	65-131	08/19/2014 1900
Bromomethane (Methyl bromide)	ND	250	230		5	91	36-168	08/19/2014 1900
2-Butanone (MEK)	ND	500	520		5	105	60-140	08/19/2014 1900
Carbon disulfide	ND	250	280		5	112	60-140	08/19/2014 1900
Carbon tetrachloride	ND	250	280		5	112	37-166	08/19/2014 1900
Chlorobenzene	ND	250	260		5	104	78-129	08/19/2014 1900
Chloroethane	ND	250	260		5	104	60-140	08/19/2014 1900
Chloroform	ND	250	260		5	105	63-123	08/19/2014 1900
Chloromethane (Methyl chloride)	ND	250	270		5	106	20-158	08/19/2014 1900
Cyclohexane	ND	250	240		5	97	70-130	08/19/2014 1900
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	260		5	102	70-130	08/19/2014 1900
Dibromochloromethane	ND	250	280		5	111	74-134	08/19/2014 1900
1,2-Dibromoethane (EDB)	ND	250	260		5	103	70-130	08/19/2014 1900
1,2-Dichlorobenzene	ND	250	260		5	104	70-130	08/19/2014 1900
1,3-Dichlorobenzene	ND	250	260		5	103	70-130	08/19/2014 1900
1,4-Dichlorobenzene	ND	250	250		5	102	70-130	08/19/2014 1900
Dichlorodifluoromethane	ND	250	280		5	111	10-158	08/19/2014 1900
1,1-Dichloroethane	ND	250	270		5	108	69-132	08/19/2014 1900
1,2-Dichloroethane	ND	250	250		5	102	70-130	08/19/2014 1900
1,1-Dichloroethene	ND	250	290		5	115	50-132	08/19/2014 1900
cis-1,2-Dichloroethene	0.87	250	260		5	103	70-130	08/19/2014 1900
trans-1,2-Dichloroethene	ND	250	270		5	108	70-130	08/19/2014 1900
1,2-Dichloropropane	ND	250	260		5	105	71-126	08/19/2014 1900
cis-1,3-Dichloropropene	ND	250	270		5	107	69-130	08/19/2014 1900
trans-1,3-Dichloropropene	ND	250	260		5	105	73-131	08/19/2014 1900
Ethylbenzene	ND	250	270		5	107	70-130	08/19/2014 1900
2-Hexanone	ND	500	510		5	102	60-140	08/19/2014 1900
Isopropylbenzene	ND	250	260		5	105	70-130	08/19/2014 1900
Methyl acetate	ND	250	180		5	73	15-128	08/19/2014 1900
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	102	70-130	08/19/2014 1900
4-Methyl-2-pentanone	ND	500	510		5	101	60-140	08/19/2014 1900
Methylcyclohexane	ND	250	260		5	106	70-130	08/19/2014 1900
Methylene chloride	ND	250	250		5	101	69-129	08/19/2014 1900
Styrene	ND	250	270		5	109	70-130	08/19/2014 1900
1,1,2,2-Tetrachloroethane	ND	250	250		5	101	60-155	08/19/2014 1900
Tetrachloroethene	ND	250	270		5	106	70-130	08/19/2014 1900
Toluene	ND	250	270		5	107	70-130	08/19/2014 1900
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	320		5	127	70-130	08/19/2014 1900
1,2,4-Trichlorobenzene	ND	250	260		5	105	70-130	08/19/2014 1900
1,1,1-Trichloroethane	ND	250	270		5	107	77-132	08/19/2014 1900
1,1,2-Trichloroethane	ND	250	260		5	103	77-132	08/19/2014 1900

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH15073-001MS

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	140	250	450		5	108	73-124	08/19/2014 1900
Trichlorofluoromethane	ND	250	280		5	110	60-140	08/19/2014 1900
Vinyl chloride	ND	250	260		5	106	29-159	08/19/2014 1900
Xylenes (total)	ND	500	530		5	106	70-130	08/19/2014 1900
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		98	70-130					
Bromofluorobenzene		97	70-130					
Toluene-d8		101	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH15073-001MD

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	420	+	5	84	23	60-140	20	08/19/2014 1923
Benzene	ND	250	260		5	104	1.4	70-130	20	08/19/2014 1923
Bromodichloromethane	ND	250	270		5	108	0.26	71-143	20	08/19/2014 1923
Bromoform	ND	250	280		5	111	1.6	65-131	20	08/19/2014 1923
Bromomethane (Methyl bromide)	ND	250	250		5	99	7.5	36-168	20	08/19/2014 1923
2-Butanone (MEK)	ND	500	480		5	96	8.5	60-140	20	08/19/2014 1923
Carbon disulfide	ND	250	280		5	112	0.31	60-140	20	08/19/2014 1923
Carbon tetrachloride	ND	250	280		5	111	0.68	37-166	20	08/19/2014 1923
Chlorobenzene	ND	250	260		5	103	1.5	78-129	20	08/19/2014 1923
Chloroethane	ND	250	260		5	103	1.1	60-140	20	08/19/2014 1923
Chloroform	ND	250	260		5	104	0.87	63-123	20	08/19/2014 1923
Chloromethane (Methyl chloride)	ND	250	260		5	103	3.2	20-158	20	08/19/2014 1923
Cyclohexane	ND	250	240		5	96	1.6	70-130	20	08/19/2014 1923
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240		5	97	4.9	70-130	20	08/19/2014 1923
Dibromochloromethane	ND	250	270		5	110	1.1	74-134	20	08/19/2014 1923
1,2-Dibromoethane (EDB)	ND	250	260		5	102	1.2	70-130	20	08/19/2014 1923
1,2-Dichlorobenzene	ND	250	250		5	102	1.7	70-130	20	08/19/2014 1923
1,3-Dichlorobenzene	ND	250	260		5	102	1.0	70-130	20	08/19/2014 1923
1,4-Dichlorobenzene	ND	250	250		5	102	0.10	70-130	20	08/19/2014 1923
Dichlorodifluoromethane	ND	250	280		5	112	0.32	10-158	20	08/19/2014 1923
1,1-Dichloroethane	ND	250	260		5	106	2.1	69-132	20	08/19/2014 1923
1,2-Dichloroethane	ND	250	250		5	100	1.2	70-130	20	08/19/2014 1923
1,1-Dichloroethene	ND	250	290		5	114	0.60	50-132	20	08/19/2014 1923
cis-1,2-Dichloroethene	0.87	250	260		5	104	0.59	70-130	20	08/19/2014 1923
trans-1,2-Dichloroethene	ND	250	270		5	108	0.72	70-130	20	08/19/2014 1923
1,2-Dichloropropane	ND	250	260		5	104	0.86	71-126	20	08/19/2014 1923
cis-1,3-Dichloropropene	ND	250	270		5	107	0.69	69-130	20	08/19/2014 1923
trans-1,3-Dichloropropene	ND	250	260		5	104	0.96	73-131	20	08/19/2014 1923
Ethylbenzene	ND	250	260		5	104	2.0	70-130	20	08/19/2014 1923
2-Hexanone	ND	500	490		5	98	4.0	60-140	20	08/19/2014 1923
Isopropylbenzene	ND	250	260		5	104	0.55	70-130	20	08/19/2014 1923
Methyl acetate	ND	250	170		5	68	8.3	15-128	20	08/19/2014 1923
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	102	0.13	70-130	20	08/19/2014 1923
4-Methyl-2-pentanone	ND	500	500		5	99	2.0	60-140	20	08/19/2014 1923
Methylcyclohexane	ND	250	260		5	104	1.4	70-130	20	08/19/2014 1923
Methylene chloride	ND	250	250		5	100	1.2	69-129	20	08/19/2014 1923
Styrene	ND	250	270		5	107	1.8	70-130	20	08/19/2014 1923
1,1,2,2-Tetrachloroethane	ND	250	250		5	99	1.2	60-155	20	08/19/2014 1923
Tetrachloroethene	ND	250	260		5	105	1.0	70-130	20	08/19/2014 1923
Toluene	ND	250	260		5	105	1.4	70-130	20	08/19/2014 1923
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	320		5	129	1.2	70-130	20	08/19/2014 1923
1,2,4-Trichlorobenzene	ND	250	250		5	98	6.8	70-130	20	08/19/2014 1923
1,1,1-Trichloroethane	ND	250	270		5	106	0.56	77-132	20	08/19/2014 1923
1,1,2-Trichloroethane	ND	250	250		5	102	1.2	77-132	20	08/19/2014 1923

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH15073-001MD

Matrix: Aqueous

Batch: 54330

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Trichloroethene	140	250	450		5	109	0.75	73-124	20	08/19/2014 1923	
Trichlorofluoromethane	ND	250	280		5	112	0.93	60-140	20	08/19/2014 1923	
Vinyl chloride	ND	250	260		5	104	1.6	29-159	20	08/19/2014 1923	
Xylenes (total)	ND	500	520		5	105	1.4	70-130	20	08/19/2014 1923	
Surrogate	Q	% Rec	Acceptance Limit								
1,2-Dichloroethane-d4		98	70-130								
Bromofluorobenzene		95	70-130								
Toluene-d8		101	70-130								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54454-001

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/20/2014 1157
Benzene	ND		1	5.0	0.20	ug/L	08/20/2014 1157
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Bromoform	ND		1	5.0	0.40	ug/L	08/20/2014 1157
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/20/2014 1157
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/20/2014 1157
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/20/2014 1157
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/20/2014 1157
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Chloroethane	ND		1	5.0	0.50	ug/L	08/20/2014 1157
Chloroform	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/20/2014 1157
Cyclohexane	ND		1	5.0	0.98	ug/L	08/20/2014 1157
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/20/2014 1157
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/20/2014 1157
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/20/2014 1157
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/20/2014 1157
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/20/2014 1157
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/20/2014 1157
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/20/2014 1157
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/20/2014 1157
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/20/2014 1157
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
2-Hexanone	ND		1	10	1.0	ug/L	08/20/2014 1157
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/20/2014 1157
Methyl acetate	ND		1	5.0	0.72	ug/L	08/20/2014 1157
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/20/2014 1157
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/20/2014 1157
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/20/2014 1157
Methylene chloride	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Styrene	ND		1	5.0	0.10	ug/L	08/20/2014 1157
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/20/2014 1157
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/20/2014 1157
Toluene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/20/2014 1157
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/20/2014 1157

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54454-001

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/20/2014 1157
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/20/2014 1157
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/20/2014 1157
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/20/2014 1157
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		102	70-130				
Toluene-d8		102	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54454-002

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	103	60-140	08/20/2014 1038
Benzene	50	51		1	102	70-130	08/20/2014 1038
Bromodichloromethane	50	54		1	109	70-130	08/20/2014 1038
Bromoform	50	57		1	113	70-130	08/20/2014 1038
Bromomethane (Methyl bromide)	50	45		1	91	60-140	08/20/2014 1038
2-Butanone (MEK)	100	110		1	106	60-140	08/20/2014 1038
Carbon disulfide	50	53		1	105	60-140	08/20/2014 1038
Carbon tetrachloride	50	53		1	107	70-130	08/20/2014 1038
Chlorobenzene	50	52		1	104	70-130	08/20/2014 1038
Chloroethane	50	49		1	98	42-163	08/20/2014 1038
Chloroform	50	51		1	102	70-130	08/20/2014 1038
Chloromethane (Methyl chloride)	50	49		1	98	60-140	08/20/2014 1038
Cyclohexane	50	47		1	93	70-130	08/20/2014 1038
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	107	70-130	08/20/2014 1038
Dibromochloromethane	50	55		1	110	70-130	08/20/2014 1038
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	08/20/2014 1038
1,4-Dichlorobenzene	50	52		1	103	70-130	08/20/2014 1038
1,3-Dichlorobenzene	50	52		1	104	70-130	08/20/2014 1038
1,2-Dichlorobenzene	50	53		1	106	70-130	08/20/2014 1038
Dichlorodifluoromethane	50	49		1	98	60-140	08/20/2014 1038
1,2-Dichloroethane	50	51		1	102	70-130	08/20/2014 1038
1,1-Dichloroethane	50	52		1	104	70-130	08/20/2014 1038
trans-1,2-Dichloroethene	50	52		1	104	70-130	08/20/2014 1038
cis-1,2-Dichloroethene	50	52		1	103	70-130	08/20/2014 1038
1,1-Dichloroethene	50	53		1	106	70-130	08/20/2014 1038
1,2-Dichloropropane	50	51		1	103	70-130	08/20/2014 1038
trans-1,3-Dichloropropene	50	55		1	110	70-130	08/20/2014 1038
cis-1,3-Dichloropropene	50	55		1	110	70-130	08/20/2014 1038
Ethylbenzene	50	52		1	104	70-130	08/20/2014 1038
2-Hexanone	100	110		1	105	60-140	08/20/2014 1038
Isopropylbenzene	50	51		1	103	70-130	08/20/2014 1038
Methyl acetate	50	35		1	71	70-130	08/20/2014 1038
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	08/20/2014 1038
4-Methyl-2-pentanone	100	110		1	105	60-140	08/20/2014 1038
Methylcyclohexane	50	52		1	104	70-130	08/20/2014 1038
Methylene chloride	50	51		1	101	70-130	08/20/2014 1038
Styrene	50	54		1	109	70-130	08/20/2014 1038
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	08/20/2014 1038
Tetrachloroethene	50	51		1	102	70-130	08/20/2014 1038
Toluene	50	52		1	104	70-130	08/20/2014 1038
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	63		1	125	70-130	08/20/2014 1038
1,2,4-Trichlorobenzene	50	54		1	109	70-130	08/20/2014 1038
1,1,2-Trichloroethane	50	52		1	104	70-130	08/20/2014 1038
1,1,1-Trichloroethane	50	53		1	106	70-130	08/20/2014 1038

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54454-002

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	103	70-130	08/20/2014 1038
Trichlorofluoromethane	50	51		1	102	70-130	08/20/2014 1038
Vinyl chloride	50	49		1	98	70-130	08/20/2014 1038
Xylenes (total)	100	100		1	104	70-130	08/20/2014 1038
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		97	70-130				
1,2-Dichloroethane-d4		98	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54454-003

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	124	19	60-140	20	08/20/2014 0953
Benzene	50	50		1	101	1.7	70-130	20	08/20/2014 0953
Bromodichloromethane	50	53		1	106	2.8	70-130	20	08/20/2014 0953
Bromoform	50	56		1	112	1.0	70-130	20	08/20/2014 0953
Bromomethane (Methyl bromide)	50	49		1	98	7.4	60-140	20	08/20/2014 0953
2-Butanone (MEK)	100	110		1	109	3.0	60-140	20	08/20/2014 0953
Carbon disulfide	50	51		1	102	3.6	60-140	20	08/20/2014 0953
Carbon tetrachloride	50	51		1	103	4.0	70-130	20	08/20/2014 0953
Chlorobenzene	50	51		1	102	2.4	70-130	20	08/20/2014 0953
Chloroethane	50	47		1	94	4.1	42-163	20	08/20/2014 0953
Chloroform	50	50		1	100	1.9	70-130	20	08/20/2014 0953
Chloromethane (Methyl chloride)	50	48		1	97	1.8	60-140	20	08/20/2014 0953
Cyclohexane	50	44		1	89	5.0	70-130	20	08/20/2014 0953
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	1.9	70-130	20	08/20/2014 0953
Dibromochloromethane	50	55		1	110	0.48	70-130	20	08/20/2014 0953
1,2-Dibromoethane (EDB)	50	52		1	104	1.7	70-130	20	08/20/2014 0953
1,4-Dichlorobenzene	50	51		1	101	2.2	70-130	20	08/20/2014 0953
1,3-Dichlorobenzene	50	51		1	103	1.5	70-130	20	08/20/2014 0953
1,2-Dichlorobenzene	50	51		1	103	3.0	70-130	20	08/20/2014 0953
Dichlorodifluoromethane	50	49		1	97	0.47	60-140	20	08/20/2014 0953
1,2-Dichloroethane	50	50		1	100	2.4	70-130	20	08/20/2014 0953
1,1-Dichloroethane	50	51		1	101	2.2	70-130	20	08/20/2014 0953
trans-1,2-Dichloroethene	50	50		1	100	3.6	70-130	20	08/20/2014 0953
cis-1,2-Dichloroethene	50	50		1	100	3.4	70-130	20	08/20/2014 0953
1,1-Dichloroethene	50	52		1	103	2.9	70-130	20	08/20/2014 0953
1,2-Dichloropropane	50	50		1	101	1.9	70-130	20	08/20/2014 0953
trans-1,3-Dichloropropene	50	54		1	108	1.8	70-130	20	08/20/2014 0953
cis-1,3-Dichloropropene	50	54		1	108	1.8	70-130	20	08/20/2014 0953
Ethylbenzene	50	52		1	103	0.91	70-130	20	08/20/2014 0953
2-Hexanone	100	100		1	104	0.77	60-140	20	08/20/2014 0953
Isopropylbenzene	50	50		1	99	3.5	70-130	20	08/20/2014 0953
Methyl acetate	50	37		1	74	4.2	70-130	20	08/20/2014 0953
Methyl tertiary butyl ether (MTBE)	50	51		1	102	4.0	70-130	20	08/20/2014 0953
4-Methyl-2-pentanone	100	100		1	103	2.3	60-140	20	08/20/2014 0953
Methylcyclohexane	50	50		1	100	4.0	70-130	20	08/20/2014 0953
Methylene chloride	50	48		1	97	4.7	70-130	20	08/20/2014 0953
Styrene	50	54		1	107	1.3	70-130	20	08/20/2014 0953
1,1,2,2-Tetrachloroethane	50	51		1	101	3.0	70-130	20	08/20/2014 0953
Tetrachloroethene	50	51		1	101	0.70	70-130	20	08/20/2014 0953
Toluene	50	51		1	102	1.3	70-130	20	08/20/2014 0953
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	60		1	120	4.0	70-130	20	08/20/2014 0953
1,2,4-Trichlorobenzene	50	55		1	110	1.5	70-130	20	08/20/2014 0953
1,1,2-Trichloroethane	50	51		1	102	2.3	70-130	20	08/20/2014 0953
1,1,1-Trichloroethane	50	50		1	100	5.5	70-130	20	08/20/2014 0953

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54454-003

Matrix: Aqueous

Batch: 54454

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	51		1	101	2.0	70-130	20	08/20/2014 0953
Trichlorofluoromethane	50	49		1	99	3.2	70-130	20	08/20/2014 0953
Vinyl chloride	50	48		1	95	3.0	70-130	20	08/20/2014 0953
Xylenes (total)	100	100		1	103	1.0	70-130	20	08/20/2014 0953
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		98	70-130						
1,2-Dichloroethane-d4		99	70-130						
Toluene-d8		102	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: mam/08/14 Lot #: PH15073

Means of receipt: <input checked="" type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
2. If custody seals were present, were they intact and unbroken?		
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>367/02/03</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
4. Is the commercial courier's packing slip attached to this form?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5. Were proper custody procedures (relinquished/received) followed?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
5a. Were samples relinquished by client to commercial courier?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
6. Were sample IDs listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
7. Were sample IDs listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
8. Was collection date & time listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
9. Was collection date & time listed on all sample containers?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
10. Did all container label information (ID, date, time) agree with the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
11. Were tests to be performed listed on the COC?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
12. Did all samples arrive in the proper containers for each test?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
13. Did all containers arrive in good condition (unbroken, lids on, etc.)?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
14. Was adequate sample volume available?		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
16. Were any samples containers missing?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
17. Were there any excess samples not listed on COC?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/>
18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
20. Were all cyanide and/or sulfide samples received at a pH >12?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
22. Were collection temperatures documented on the COC for NC samples?		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
24. Was the quote number used taken from the container label?		
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mam</u> Verified by: <u>mam</u> Date: <u>8/15/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH21057 were collected on August 20-21, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308**

Lot Number: **PH21057**

Date Completed: **08/25/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH21057 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH21057

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH21057

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-70-34	Aqueous	08/20/2014 1015	08/21/2014
002	TMW-72-18	Aqueous	08/20/2014 1555	08/21/2014
003	TMW-74-18	Aqueous	08/21/2014 1110	08/21/2014
004	TMW-75-19	Aqueous	08/21/2014 1155	08/21/2014
005	TMW-77-14	Aqueous	08/21/2014 1415	08/21/2014
006	TMW-78-12	Aqueous	08/21/2014 1515	08/21/2014
007	TB	Aqueous	08/20/2014	08/21/2014

(7 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH21057

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	TMW-72-18	Aqueous	Acetone	8260B	11	J	ug/L	7
002	TMW-72-18	Aqueous	Trichloroethene	8260B	0.48	J	ug/L	8
003	TMW-74-18	Aqueous	Acetone	8260B	12	J	ug/L	9
004	TMW-75-19	Aqueous	Acetone	8260B	16	J	ug/L	11
004	TMW-75-19	Aqueous	Trichloroethene	8260B	0.64	J	ug/L	12
005	TMW-77-14	Aqueous	Acetone	8260B	37		ug/L	13
005	TMW-77-14	Aqueous	Benzene	8260B	0.24	J	ug/L	13
005	TMW-77-14	Aqueous	Toluene	8260B	1.7	J	ug/L	13
005	TMW-77-14	Aqueous	Trichloroethene	8260B	3.3	J	ug/L	14

(9 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-001
Description: TMW-70-34	Matrix: Aqueous
Date Sampled: 08/20/2014 1015	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1320	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-001
Description: TMW-70-34	Matrix: Aqueous
Date Sampled: 08/20/2014 1015	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1320	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		122	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-002
Description: TMW-72-18	Matrix: Aqueous
Date Sampled: 08/20/2014 1555	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1343	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-002
Description: TMW-72-18	Matrix: Aqueous
Date Sampled: 08/20/2014 1555	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1343	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.48	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PH21057-003**

 Description: **TMW-74-18**

 Matrix: **Aqueous**

 Date Sampled: **08/21/2014 1110**

 Date Received: **08/21/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1406	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	12	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-003
Description: TMW-74-18	Matrix: Aqueous
Date Sampled: 08/21/2014 1110	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1406	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PH21057-004**

 Description: **TMW-75-19**

 Matrix: **Aqueous**

 Date Sampled: **08/21/2014 1155**

 Date Received: **08/21/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1429	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	16	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-004
Description: TMW-75-19	Matrix: Aqueous
Date Sampled: 08/21/2014 1155	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1429	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.64	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-005
Description: TMW-77-14	Matrix: Aqueous
Date Sampled: 08/21/2014 1415	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1452	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	37		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.24	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	1.7	J	5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-005
Description: TMW-77-14	Matrix: Aqueous
Date Sampled: 08/21/2014 1415	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1452	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	3.3	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-006
Description: TMW-78-12	Matrix: Aqueous
Date Sampled: 08/21/2014 1515	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1515	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-006
Description: TMW-78-12	Matrix: Aqueous
Date Sampled: 08/21/2014 1515	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1515	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-007
Description: TB	Matrix: Aqueous
Date Sampled: 08/20/2014	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1258	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH21057-007
Description: TB	Matrix: Aqueous
Date Sampled: 08/20/2014	
Date Received: 08/21/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/22/2014 1258	EH1		54628

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54628-001

Matrix: Aqueous

Batch: 54628

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/22/2014 1212
Benzene	ND		1	5.0	0.20	ug/L	08/22/2014 1212
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Bromoform	ND		1	5.0	0.40	ug/L	08/22/2014 1212
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/22/2014 1212
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/22/2014 1212
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/22/2014 1212
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/22/2014 1212
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Chloroethane	ND		1	5.0	0.50	ug/L	08/22/2014 1212
Chloroform	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/22/2014 1212
Cyclohexane	ND		1	5.0	0.98	ug/L	08/22/2014 1212
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/22/2014 1212
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/22/2014 1212
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/22/2014 1212
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/22/2014 1212
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/22/2014 1212
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/22/2014 1212
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/22/2014 1212
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/22/2014 1212
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/22/2014 1212
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
2-Hexanone	ND		1	10	1.0	ug/L	08/22/2014 1212
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/22/2014 1212
Methyl acetate	ND		1	5.0	0.72	ug/L	08/22/2014 1212
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/22/2014 1212
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/22/2014 1212
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/22/2014 1212
Methylene chloride	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Styrene	ND		1	5.0	0.10	ug/L	08/22/2014 1212
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/22/2014 1212
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/22/2014 1212
Toluene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/22/2014 1212
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/22/2014 1212

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54628-001

Matrix: Aqueous

Batch: 54628

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/22/2014 1212
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/22/2014 1212
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/22/2014 1212
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/22/2014 1212
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		96	70-130				
1,2-Dichloroethane-d4		102	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54628-002

Matrix: Aqueous

Batch: 54628

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	105	60-140	08/22/2014 1040
Benzene	50	50		1	101	70-130	08/22/2014 1040
Bromodichloromethane	50	53		1	105	70-130	08/22/2014 1040
Bromoform	50	54		1	107	70-130	08/22/2014 1040
Bromomethane (Methyl bromide)	50	45		1	90	60-140	08/22/2014 1040
2-Butanone (MEK)	100	100		1	100	60-140	08/22/2014 1040
Carbon disulfide	50	53		1	106	60-140	08/22/2014 1040
Carbon tetrachloride	50	53		1	105	70-130	08/22/2014 1040
Chlorobenzene	50	50		1	100	70-130	08/22/2014 1040
Chloroethane	50	49		1	97	42-163	08/22/2014 1040
Chloroform	50	50		1	100	70-130	08/22/2014 1040
Chloromethane (Methyl chloride)	50	51		1	102	60-140	08/22/2014 1040
Cyclohexane	50	48		1	95	70-130	08/22/2014 1040
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	08/22/2014 1040
Dibromochloromethane	50	53		1	107	70-130	08/22/2014 1040
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	08/22/2014 1040
1,4-Dichlorobenzene	50	49		1	98	70-130	08/22/2014 1040
1,3-Dichlorobenzene	50	49		1	99	70-130	08/22/2014 1040
1,2-Dichlorobenzene	50	50		1	99	70-130	08/22/2014 1040
Dichlorodifluoromethane	50	52		1	103	60-140	08/22/2014 1040
1,2-Dichloroethane	50	50		1	100	70-130	08/22/2014 1040
1,1-Dichloroethane	50	51		1	102	70-130	08/22/2014 1040
trans-1,2-Dichloroethene	50	51		1	102	70-130	08/22/2014 1040
cis-1,2-Dichloroethene	50	50		1	100	70-130	08/22/2014 1040
1,1-Dichloroethene	50	53		1	106	70-130	08/22/2014 1040
1,2-Dichloropropane	50	50		1	101	70-130	08/22/2014 1040
trans-1,3-Dichloropropene	50	53		1	105	70-130	08/22/2014 1040
cis-1,3-Dichloropropene	50	53		1	106	70-130	08/22/2014 1040
Ethylbenzene	50	50		1	101	70-130	08/22/2014 1040
2-Hexanone	100	100		1	100	60-140	08/22/2014 1040
Isopropylbenzene	50	49		1	98	70-130	08/22/2014 1040
Methyl acetate	50	36		1	71	60-140	08/22/2014 1040
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	08/22/2014 1040
4-Methyl-2-pentanone	100	100		1	102	60-140	08/22/2014 1040
Methylcyclohexane	50	52		1	103	70-130	08/22/2014 1040
Methylene chloride	50	49		1	99	70-130	08/22/2014 1040
Styrene	50	52		1	103	70-130	08/22/2014 1040
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	08/22/2014 1040
Tetrachloroethene	50	49		1	99	70-130	08/22/2014 1040
Toluene	50	50		1	100	70-130	08/22/2014 1040
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	64		1	128	70-130	08/22/2014 1040
1,2,4-Trichlorobenzene	50	53		1	106	70-130	08/22/2014 1040
1,1,2-Trichloroethane	50	50		1	100	70-130	08/22/2014 1040
1,1,1-Trichloroethane	50	52		1	103	70-130	08/22/2014 1040

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54628-002

Matrix: Aqueous

Batch: 54628

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	08/22/2014 1040
Trichlorofluoromethane	50	51		1	103	70-130	08/22/2014 1040
Vinyl chloride	50	51		1	103	70-130	08/22/2014 1040
Xylenes (total)	100	100		1	101	70-130	08/22/2014 1040
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		96			70-130		
1,2-Dichloroethane-d4		100			70-130		
Toluene-d8		102			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

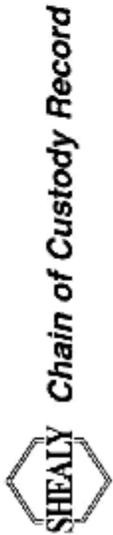
ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results



SHEALY ENVIRONMENTAL SERVICES, INC.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 105649

Client: AECOM Telephone No. / Fax No. / Email: (803) 201-9662 Curio No. _____
 Address: 2700 Fiber Place Suite 300 Waybill No. _____ Page 1 of 1
 City: Ch.leston State: SC Zip Code: 29405
 Project Name: Shakespeare Composites
 Project No.: 60328308
 Report to Contact: Scott Ellis
 Sample's Signature: [Signature]
 Project Name: Justin Butler

Sample ID / Description (Containers for each sample may be combined on one line.)	P.O. No.	Date	Time	Matrix		No. of Containers by Preservative Type							Analysis (Attach list if more space is needed)	
				Soil	Water	MSDC	MSDC	MSDC	MSDC	MSDC	MSDC	MSDC		MSDC
TMO2-70-34		8/20/14	1015	X									X	PH21057 [Barcode]
TMO2-72-18		8/20/14	1555	X									X	
TMO2-74-18		8/20/14	1110	X									X	
TMO2-75-19		8/20/14	1155	X									X	
TMO2-77-19		8/20/14	1415	X									X	
TMO2-78-12		8/20/14	1515	X									X	
TB		8/20/14		X									X	

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison Unknown
 Turn Around Time Required: (Prior lab approval required for expedited TAT.)
 Standard Rush (Specify): (24-48 hrs.)
 Sample Disposal: Return to Client Dispose by Lab DC Requirements (Specify)
 Note: All samples are retained for six weeks from receipt unless other arrangements are made.

1. Requisitioned by	Date	Time	1. Received by	Date	Time
[Signature]	8/20/14	1730	[Signature]	8/20/14	1730
2. Requisitioned by					
3. Requisitioned by	8/20/14	1810			
Comments					

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Samples(s); PINK-Field/Client Copy
 LAB USE ONLY
 Received on ice (Circle) No. for Pack: 17 °C
 Document Number: F-AD-012 Effective Date: 08-04-02

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AE.com Cooler Inspected by/date: mum/8/21/14 Lot #: RH2057

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>A.6 / A.7</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/TEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mum</u> Verified by: <u>mum</u> Date: <u>8/21/14</u>		

Comments: _____

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH22039 were collected on August 22, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

All results of acetone associated with preparatory batch 55019 were qualified “/J/E” due to the relative percent difference between the laboratory control sample and laboratory control sample duplicate exceeding the established criteria of 25% (35%). These qualifiers indicate imprecision with laboratory methodology, instrumentation, or matrix interference.

Data Summary and Usability

The QC excursions encountered during the validation of this data set did not result in the rejection of any data. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

- United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*
- United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*
- United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.
- United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308**

Lot Number: **PH22039**

Date Completed: **08/29/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH22039 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH22039

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH22039

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-80-35	Aqueous	08/22/2014 1110	08/22/2014
002	TMW-83-14	Aqueous	08/22/2014 1520	08/22/2014
003	TB	Aqueous	08/22/2014	08/22/2014

(3 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH22039

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-80-35	Aqueous	cis-1,2-Dichloroethene	8260B	1.2	J	ug/L	5
001	TMW-80-35	Aqueous	Trichloroethene	8260B	0.41	J	ug/L	6

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH22039-001
Description: TMW-80-35	Matrix: Aqueous
Date Sampled: 08/22/2014 1110	
Date Received: 08/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2014 1905	ALL		54915

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.2	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH22039-001
Description: TMW-80-35	Matrix: Aqueous
Date Sampled: 08/22/2014 1110	
Date Received: 08/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2014 1905	ALL		54915

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.41	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PH22039-002**

 Description: **TMW-83-14**

 Matrix: **Aqueous**

 Date Sampled: **08/22/2014 1520**

 Date Received: **08/22/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	08/28/2014 2056	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	2
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	2
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	2
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	2
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	2
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	1.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	2
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	2
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	2
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	2

PQL = Practical quantitation limit
 B = Detected in the method blank
 E = Quantitation of compound exceeded the calibration range
 H = Out of holding time
 ND = Not detected at or above the MDL
 J = Estimated result < PQL and ≥ MDL
 P = The RPD between two GC columns exceeds 40%
 N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH22039-002
Description: TMW-83-14	Matrix: Aqueous
Date Sampled: 08/22/2014 1520	
Date Received: 08/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	08/28/2014 2056	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		25	1.5	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH22039-003
Description: TB	Matrix: Aqueous
Date Sampled: 08/22/2014	
Date Received: 08/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2014 1732	ALL		54915

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH22039-003
Description: TB	Matrix: Aqueous
Date Sampled: 08/22/2014	
Date Received: 08/22/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/27/2014 1732	ALL		54915

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54915-001

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/27/2014 1647
Benzene	ND		1	5.0	0.20	ug/L	08/27/2014 1647
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Bromoform	ND		1	5.0	0.40	ug/L	08/27/2014 1647
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/27/2014 1647
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/27/2014 1647
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/27/2014 1647
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/27/2014 1647
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Chloroethane	ND		1	5.0	0.50	ug/L	08/27/2014 1647
Chloroform	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/27/2014 1647
Cyclohexane	ND		1	5.0	0.98	ug/L	08/27/2014 1647
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/27/2014 1647
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/27/2014 1647
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/27/2014 1647
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/27/2014 1647
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/27/2014 1647
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/27/2014 1647
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/27/2014 1647
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/27/2014 1647
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/27/2014 1647
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
2-Hexanone	ND		1	10	1.0	ug/L	08/27/2014 1647
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/27/2014 1647
Methyl acetate	ND		1	5.0	0.72	ug/L	08/27/2014 1647
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/27/2014 1647
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/27/2014 1647
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/27/2014 1647
Methylene chloride	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Styrene	ND		1	5.0	0.10	ug/L	08/27/2014 1647
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/27/2014 1647
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/27/2014 1647
Toluene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/27/2014 1647
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/27/2014 1647

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54915-001

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/27/2014 1647
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/27/2014 1647
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/27/2014 1647
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/27/2014 1647
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		101	70-130				
1,2-Dichloroethane-d4		104	70-130				
Toluene-d8		103	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54915-002

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	115	60-140	08/27/2014 1515
Benzene	50	55		1	110	70-130	08/27/2014 1515
Bromodichloromethane	50	56		1	113	70-130	08/27/2014 1515
Bromoform	50	50		1	101	70-130	08/27/2014 1515
Bromomethane (Methyl bromide)	50	48		1	96	60-140	08/27/2014 1515
2-Butanone (MEK)	100	100		1	100	60-140	08/27/2014 1515
Carbon disulfide	50	51		1	103	60-140	08/27/2014 1515
Carbon tetrachloride	50	48		1	97	70-130	08/27/2014 1515
Chlorobenzene	50	55		1	111	70-130	08/27/2014 1515
Chloroethane	50	54		1	109	42-163	08/27/2014 1515
Chloroform	50	55		1	111	70-130	08/27/2014 1515
Chloromethane (Methyl chloride)	50	55		1	111	60-140	08/27/2014 1515
Cyclohexane	50	47		1	93	70-130	08/27/2014 1515
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	70-130	08/27/2014 1515
Dibromochloromethane	50	50		1	101	70-130	08/27/2014 1515
1,2-Dibromoethane (EDB)	50	58		1	115	70-130	08/27/2014 1515
1,2-Dichlorobenzene	50	55		1	110	70-130	08/27/2014 1515
1,4-Dichlorobenzene	50	56		1	112	70-130	08/27/2014 1515
1,3-Dichlorobenzene	50	56		1	111	70-130	08/27/2014 1515
Dichlorodifluoromethane	50	56		1	113	60-140	08/27/2014 1515
1,1-Dichloroethane	50	55		1	109	70-130	08/27/2014 1515
1,2-Dichloroethane	50	55		1	109	70-130	08/27/2014 1515
cis-1,2-Dichloroethene	50	55		1	111	70-130	08/27/2014 1515
1,1-Dichloroethene	50	48		1	97	70-130	08/27/2014 1515
trans-1,2-Dichloroethene	50	55		1	109	70-130	08/27/2014 1515
1,2-Dichloropropane	50	55		1	109	70-130	08/27/2014 1515
trans-1,3-Dichloropropene	50	50		1	101	70-130	08/27/2014 1515
cis-1,3-Dichloropropene	50	51		1	103	70-130	08/27/2014 1515
Ethylbenzene	50	55		1	110	70-130	08/27/2014 1515
2-Hexanone	100	120		1	116	60-140	08/27/2014 1515
Isopropylbenzene	50	55		1	110	70-130	08/27/2014 1515
Methyl acetate	50	35		1	71	60-140	08/27/2014 1515
Methyl tertiary butyl ether (MTBE)	50	54		1	109	70-130	08/27/2014 1515
4-Methyl-2-pentanone	100	110		1	114	60-140	08/27/2014 1515
Methylcyclohexane	50	52		1	104	70-130	08/27/2014 1515
Methylene chloride	50	49		1	99	70-130	08/27/2014 1515
Styrene	50	51		1	103	70-130	08/27/2014 1515
1,1,2,2-Tetrachloroethane	50	58		1	116	70-130	08/27/2014 1515
Tetrachloroethene	50	55		1	109	70-130	08/27/2014 1515
Toluene	50	55		1	110	70-130	08/27/2014 1515
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	08/27/2014 1515
1,2,4-Trichlorobenzene	50	46		1	91	70-130	08/27/2014 1515
1,1,2-Trichloroethane	50	56		1	113	70-130	08/27/2014 1515
1,1,1-Trichloroethane	50	53		1	106	70-130	08/27/2014 1515

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54915-002

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	109	70-130	08/27/2014 1515
Trichlorofluoromethane	50	48		1	95	70-130	08/27/2014 1515
Vinyl chloride	50	54		1	108	70-130	08/27/2014 1515
Xylenes (total)	100	110		1	112	70-130	08/27/2014 1515
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		103	70-130				
1,2-Dichloroethane-d4		99	70-130				
Toluene-d8		106	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54915-003

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	118	2.1	60-140	20	08/27/2014 1538
Benzene	50	56		1	112	2.2	70-130	20	08/27/2014 1538
Bromodichloromethane	50	57		1	115	1.6	70-130	20	08/27/2014 1538
Bromoform	50	50		1	99	1.5	70-130	20	08/27/2014 1538
Bromomethane (Methyl bromide)	50	53		1	106	9.4	60-140	20	08/27/2014 1538
2-Butanone (MEK)	100	110		1	106	5.5	60-140	20	08/27/2014 1538
Carbon disulfide	50	52		1	103	0.65	60-140	20	08/27/2014 1538
Carbon tetrachloride	50	49		1	98	0.97	70-130	20	08/27/2014 1538
Chlorobenzene	50	56		1	112	1.1	70-130	20	08/27/2014 1538
Chloroethane	50	56		1	112	2.9	42-163	20	08/27/2014 1538
Chloroform	50	56		1	112	1.4	70-130	20	08/27/2014 1538
Chloromethane (Methyl chloride)	50	56		1	113	2.0	60-140	20	08/27/2014 1538
Cyclohexane	50	49		1	97	4.1	70-130	20	08/27/2014 1538
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	93	4.2	70-130	20	08/27/2014 1538
Dibromochloromethane	50	51		1	101	0.72	70-130	20	08/27/2014 1538
1,2-Dibromoethane (EDB)	50	57		1	115	0.66	70-130	20	08/27/2014 1538
1,2-Dichlorobenzene	50	54		1	109	0.91	70-130	20	08/27/2014 1538
1,4-Dichlorobenzene	50	55		1	111	0.72	70-130	20	08/27/2014 1538
1,3-Dichlorobenzene	50	56		1	111	0.065	70-130	20	08/27/2014 1538
Dichlorodifluoromethane	50	57		1	114	1.0	60-140	20	08/27/2014 1538
1,1-Dichloroethane	50	55		1	110	1.1	70-130	20	08/27/2014 1538
1,2-Dichloroethane	50	56		1	112	2.2	70-130	20	08/27/2014 1538
cis-1,2-Dichloroethene	50	56		1	113	1.7	70-130	20	08/27/2014 1538
1,1-Dichloroethene	50	49		1	98	0.87	70-130	20	08/27/2014 1538
trans-1,2-Dichloroethene	50	54		1	109	0.49	70-130	20	08/27/2014 1538
1,2-Dichloropropane	50	56		1	112	2.4	70-130	20	08/27/2014 1538
trans-1,3-Dichloropropene	50	51		1	102	1.0	70-130	20	08/27/2014 1538
cis-1,3-Dichloropropene	50	52		1	104	1.6	70-130	20	08/27/2014 1538
Ethylbenzene	50	57		1	113	2.5	70-130	20	08/27/2014 1538
2-Hexanone	100	120		1	117	1.3	60-140	20	08/27/2014 1538
Isopropylbenzene	50	56		1	113	3.0	70-130	20	08/27/2014 1538
Methyl acetate	50	38		1	75	6.3	60-140	20	08/27/2014 1538
Methyl tertiary butyl ether (MTBE)	50	56		1	111	2.6	70-130	20	08/27/2014 1538
4-Methyl-2-pentanone	100	110		1	113	0.70	60-140	20	08/27/2014 1538
Methylcyclohexane	50	54		1	108	3.8	70-130	20	08/27/2014 1538
Methylene chloride	50	50		1	99	0.39	70-130	20	08/27/2014 1538
Styrene	50	52		1	104	1.1	70-130	20	08/27/2014 1538
1,1,2,2-Tetrachloroethane	50	58		1	116	0.14	70-130	20	08/27/2014 1538
Tetrachloroethene	50	55		1	110	0.71	70-130	20	08/27/2014 1538
Toluene	50	56		1	113	2.2	70-130	20	08/27/2014 1538
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	101	5.9	70-130	20	08/27/2014 1538
1,2,4-Trichlorobenzene	50	48		1	96	4.8	70-130	20	08/27/2014 1538
1,1,2-Trichloroethane	50	57		1	114	0.65	70-130	20	08/27/2014 1538
1,1,1-Trichloroethane	50	54		1	109	2.5	70-130	20	08/27/2014 1538

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54915-003

Matrix: Aqueous

Batch: 54915

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	56		1	111	2.0	70-130	20	08/27/2014 1538
Trichlorofluoromethane	50	48		1	96	1.1	70-130	20	08/27/2014 1538
Vinyl chloride	50	55		1	110	2.0	70-130	20	08/27/2014 1538
Xylenes (total)	100	110		1	113	1.0	70-130	20	08/27/2014 1538
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		102	70-130						
1,2-Dichloroethane-d4		99	70-130						
Toluene-d8		106	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55019-001

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/28/2014 1246
Benzene	ND		1	5.0	0.20	ug/L	08/28/2014 1246
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Bromoform	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/28/2014 1246
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/28/2014 1246
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Chloroethane	ND		1	5.0	0.50	ug/L	08/28/2014 1246
Chloroform	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Cyclohexane	ND		1	5.0	0.98	ug/L	08/28/2014 1246
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/28/2014 1246
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 1246
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/28/2014 1246
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
2-Hexanone	ND		1	10	1.0	ug/L	08/28/2014 1246
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/28/2014 1246
Methyl acetate	ND		1	5.0	0.72	ug/L	08/28/2014 1246
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2014 1246
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/28/2014 1246
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/28/2014 1246
Methylene chloride	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Styrene	ND		1	5.0	0.10	ug/L	08/28/2014 1246
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Toluene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55019-001

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/28/2014 1246
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55019-002

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	08/28/2014 1115
Benzene	50	55		1	110	70-130	08/28/2014 1115
Bromodichloromethane	50	56		1	113	70-130	08/28/2014 1115
Bromoform	50	48		1	96	70-130	08/28/2014 1115
Bromomethane (Methyl bromide)	50	51		1	101	60-140	08/28/2014 1115
2-Butanone (MEK)	100	110		1	106	60-140	08/28/2014 1115
Carbon disulfide	50	52		1	103	60-140	08/28/2014 1115
Carbon tetrachloride	50	50		1	100	70-130	08/28/2014 1115
Chlorobenzene	50	55		1	109	70-130	08/28/2014 1115
Chloroethane	50	53		1	106	42-163	08/28/2014 1115
Chloroform	50	55		1	110	70-130	08/28/2014 1115
Chloromethane (Methyl chloride)	50	55		1	110	60-140	08/28/2014 1115
Cyclohexane	50	47		1	94	70-130	08/28/2014 1115
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	08/28/2014 1115
Dibromochloromethane	50	49		1	98	70-130	08/28/2014 1115
1,2-Dibromoethane (EDB)	50	56		1	111	70-130	08/28/2014 1115
1,4-Dichlorobenzene	50	56		1	111	70-130	08/28/2014 1115
1,3-Dichlorobenzene	50	55		1	111	70-130	08/28/2014 1115
1,2-Dichlorobenzene	50	55		1	110	70-130	08/28/2014 1115
Dichlorodifluoromethane	50	59		1	118	60-140	08/28/2014 1115
1,1-Dichloroethane	50	54		1	107	70-130	08/28/2014 1115
1,2-Dichloroethane	50	54		1	108	70-130	08/28/2014 1115
trans-1,2-Dichloroethene	50	55		1	109	70-130	08/28/2014 1115
cis-1,2-Dichloroethene	50	55		1	111	70-130	08/28/2014 1115
1,1-Dichloroethene	50	49		1	99	70-130	08/28/2014 1115
1,2-Dichloropropane	50	54		1	108	70-130	08/28/2014 1115
cis-1,3-Dichloropropene	50	50		1	101	70-130	08/28/2014 1115
trans-1,3-Dichloropropene	50	48		1	96	70-130	08/28/2014 1115
Ethylbenzene	50	56		1	113	70-130	08/28/2014 1115
2-Hexanone	100	110		1	107	60-140	08/28/2014 1115
Isopropylbenzene	50	55		1	109	70-130	08/28/2014 1115
Methyl acetate	50	37		1	75	60-140	08/28/2014 1115
Methyl tertiary butyl ether (MTBE)	50	54		1	107	70-130	08/28/2014 1115
4-Methyl-2-pentanone	100	110		1	108	60-140	08/28/2014 1115
Methylcyclohexane	50	56		1	112	70-130	08/28/2014 1115
Methylene chloride	50	49		1	98	70-130	08/28/2014 1115
Styrene	50	51		1	102	70-130	08/28/2014 1115
1,1,2,2-Tetrachloroethane	50	55		1	111	70-130	08/28/2014 1115
Tetrachloroethene	50	56		1	112	70-130	08/28/2014 1115
Toluene	50	56		1	111	70-130	08/28/2014 1115
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	110	70-130	08/28/2014 1115
1,2,4-Trichlorobenzene	50	48		1	97	70-130	08/28/2014 1115
1,1,1-Trichloroethane	50	55		1	110	70-130	08/28/2014 1115
1,1,2-Trichloroethane	50	55		1	110	70-130	08/28/2014 1115

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55019-002

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	56		1	113	70-130	08/28/2014 1115
Trichlorofluoromethane	50	49		1	99	70-130	08/28/2014 1115
Vinyl chloride	50	55		1	110	70-130	08/28/2014 1115
Xylenes (total)	100	110		1	112	70-130	08/28/2014 1115
Surrogate	Q	% Rec			Acceptance Limit		
Bromofluorobenzene		101			70-130		
1,2-Dichloroethane-d4		100			70-130		
Toluene-d8		104			70-130		

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55019-003

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	95	+	1	95	35	60-140	20	08/28/2014 1138
Benzene	50	54		1	109	0.91	70-130	20	08/28/2014 1138
Bromodichloromethane	50	55		1	110	2.5	70-130	20	08/28/2014 1138
Bromoform	50	46		1	91	4.6	70-130	20	08/28/2014 1138
Bromomethane (Methyl bromide)	50	49		1	98	3.0	60-140	20	08/28/2014 1138
2-Butanone (MEK)	100	96		1	96	10	60-140	20	08/28/2014 1138
Carbon disulfide	50	50		1	99	3.9	60-140	20	08/28/2014 1138
Carbon tetrachloride	50	48		1	96	3.9	70-130	20	08/28/2014 1138
Chlorobenzene	50	54		1	108	0.88	70-130	20	08/28/2014 1138
Chloroethane	50	51		1	103	3.0	42-163	20	08/28/2014 1138
Chloroform	50	53		1	105	4.6	70-130	20	08/28/2014 1138
Chloromethane (Methyl chloride)	50	53		1	106	3.7	60-140	20	08/28/2014 1138
Cyclohexane	50	46		1	91	3.7	70-130	20	08/28/2014 1138
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	81	8.5	70-130	20	08/28/2014 1138
Dibromochloromethane	50	48		1	96	2.3	70-130	20	08/28/2014 1138
1,2-Dibromoethane (EDB)	50	55		1	110	1.4	70-130	20	08/28/2014 1138
1,4-Dichlorobenzene	50	54		1	108	3.3	70-130	20	08/28/2014 1138
1,3-Dichlorobenzene	50	54		1	107	3.1	70-130	20	08/28/2014 1138
1,2-Dichlorobenzene	50	53		1	106	2.8	70-130	20	08/28/2014 1138
Dichlorodifluoromethane	50	55		1	111	6.6	60-140	20	08/28/2014 1138
1,1-Dichloroethane	50	52		1	104	3.3	70-130	20	08/28/2014 1138
1,2-Dichloroethane	50	53		1	105	2.5	70-130	20	08/28/2014 1138
trans-1,2-Dichloroethene	50	52		1	105	4.1	70-130	20	08/28/2014 1138
cis-1,2-Dichloroethene	50	53		1	105	5.0	70-130	20	08/28/2014 1138
1,1-Dichloroethene	50	47		1	95	4.5	70-130	20	08/28/2014 1138
1,2-Dichloropropane	50	52		1	105	2.8	70-130	20	08/28/2014 1138
cis-1,3-Dichloropropene	50	50		1	100	0.41	70-130	20	08/28/2014 1138
trans-1,3-Dichloropropene	50	48		1	96	0.65	70-130	20	08/28/2014 1138
Ethylbenzene	50	55		1	111	1.8	70-130	20	08/28/2014 1138
2-Hexanone	100	110		1	106	1.4	60-140	20	08/28/2014 1138
Isopropylbenzene	50	54		1	108	1.4	70-130	20	08/28/2014 1138
Methyl acetate	50	32		1	63	17	60-140	20	08/28/2014 1138
Methyl tertiary butyl ether (MTBE)	50	49		1	98	9.1	70-130	20	08/28/2014 1138
4-Methyl-2-pentanone	100	100		1	103	4.5	60-140	20	08/28/2014 1138
Methylcyclohexane	50	53		1	107	5.4	70-130	20	08/28/2014 1138
Methylene chloride	50	47		1	94	4.2	70-130	20	08/28/2014 1138
Styrene	50	50		1	100	2.5	70-130	20	08/28/2014 1138
1,1,2,2-Tetrachloroethane	50	54		1	108	2.5	70-130	20	08/28/2014 1138
Tetrachloroethene	50	54		1	109	2.8	70-130	20	08/28/2014 1138
Toluene	50	55		1	110	0.78	70-130	20	08/28/2014 1138
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	6.6	70-130	20	08/28/2014 1138
1,2,4-Trichlorobenzene	50	47		1	94	2.8	70-130	20	08/28/2014 1138
1,1,1-Trichloroethane	50	53		1	105	4.4	70-130	20	08/28/2014 1138
1,1,2-Trichloroethane	50	55		1	109	0.91	70-130	20	08/28/2014 1138

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55019-003

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	56		1	111	1.6	70-130	20	08/28/2014 1138
Trichlorofluoromethane	50	47		1	93	5.7	70-130	20	08/28/2014 1138
Vinyl chloride	50	53		1	105	4.5	70-130	20	08/28/2014 1138
Xylenes (total)	100	110		1	110	1.8	70-130	20	08/28/2014 1138
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		99	70-130						
1,2-Dichloroethane-d4		97	70-130						
Toluene-d8		105	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH22039-002MS

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	400		5	80	60-140	08/28/2014 2119
Benzene	ND	250	280		5	111	70-130	08/28/2014 2119
Bromodichloromethane	ND	250	280		5	112	71-143	08/28/2014 2119
Bromoform	ND	250	250		5	98	65-131	08/28/2014 2119
Bromomethane (Methyl bromide)	ND	250	250		5	102	36-168	08/28/2014 2119
2-Butanone (MEK)	ND	500	440		5	89	60-140	08/28/2014 2119
Carbon disulfide	ND	250	270		5	107	60-140	08/28/2014 2119
Carbon tetrachloride	ND	250	260		5	103	37-166	08/28/2014 2119
Chlorobenzene	ND	250	270		5	110	78-129	08/28/2014 2119
Chloroethane	ND	250	280		5	111	60-140	08/28/2014 2119
Chloroform	ND	250	270		5	108	63-123	08/28/2014 2119
Chloromethane (Methyl chloride)	ND	250	290		5	114	20-158	08/28/2014 2119
Cyclohexane	ND	250	240		5	95	70-130	08/28/2014 2119
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	83	70-130	08/28/2014 2119
Dibromochloromethane	ND	250	250		5	100	74-134	08/28/2014 2119
1,2-Dibromoethane (EDB)	ND	250	270		5	109	70-130	08/28/2014 2119
1,2-Dichlorobenzene	ND	250	260		5	105	70-130	08/28/2014 2119
1,3-Dichlorobenzene	ND	250	270		5	107	70-130	08/28/2014 2119
1,4-Dichlorobenzene	ND	250	260		5	106	70-130	08/28/2014 2119
Dichlorodifluoromethane	ND	250	310		5	124	10-158	08/28/2014 2119
1,1-Dichloroethane	ND	250	270		5	107	69-132	08/28/2014 2119
1,2-Dichloroethane	ND	250	260		5	105	70-130	08/28/2014 2119
1,1-Dichloroethene	ND	250	260		5	103	50-132	08/28/2014 2119
cis-1,2-Dichloroethene	ND	250	270		5	109	70-130	08/28/2014 2119
trans-1,2-Dichloroethene	ND	250	270		5	109	70-130	08/28/2014 2119
1,2-Dichloropropane	ND	250	270		5	106	71-126	08/28/2014 2119
cis-1,3-Dichloropropene	ND	250	240		5	96	69-130	08/28/2014 2119
trans-1,3-Dichloropropene	ND	250	230		5	92	73-131	08/28/2014 2119
Ethylbenzene	ND	250	280		5	112	70-130	08/28/2014 2119
2-Hexanone	ND	500	510		5	101	60-140	08/28/2014 2119
Isopropylbenzene	ND	250	270		5	108	70-130	08/28/2014 2119
Methyl acetate	ND	250	150		5	62	15-128	08/28/2014 2119
Methyl tertiary butyl ether (MTBE)	ND	250	260		5	104	70-130	08/28/2014 2119
4-Methyl-2-pentanone	ND	500	500		5	101	60-140	08/28/2014 2119
Methylcyclohexane	ND	250	280		5	111	70-130	08/28/2014 2119
Methylene chloride	ND	250	230		5	94	69-129	08/28/2014 2119
Styrene	ND	250	250		5	101	70-130	08/28/2014 2119
1,1,2,2-Tetrachloroethane	ND	250	260		5	105	60-155	08/28/2014 2119
Tetrachloroethene	ND	250	290		5	117	70-130	08/28/2014 2119
Toluene	ND	250	280		5	112	70-130	08/28/2014 2119
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	270		5	110	70-130	08/28/2014 2119
1,2,4-Trichlorobenzene	ND	250	230		5	93	70-130	08/28/2014 2119
1,1,1-Trichloroethane	ND	250	280		5	111	77-132	08/28/2014 2119
1,1,2-Trichloroethane	ND	250	270		5	109	77-132	08/28/2014 2119

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH22039-002MS

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	290		5	116	73-124	08/28/2014 2119
Trichlorofluoromethane	ND	250	270		5	106	60-140	08/28/2014 2119
Vinyl chloride	ND	250	290		5	115	29-159	08/28/2014 2119
Xylenes (total)	ND	500	560		5	111	70-130	08/28/2014 2119
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		98	70-130					
Bromofluorobenzene		99	70-130					
Toluene-d8		105	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH22039-002MD

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	440	5		87	9.0	60-140	20	08/28/2014 2142
Benzene	ND	250	290	5		114	2.6	70-130	20	08/28/2014 2142
Bromodichloromethane	ND	250	290	5		117	4.0	71-143	20	08/28/2014 2142
Bromoform	ND	250	260	5		104	5.9	65-131	20	08/28/2014 2142
Bromomethane (Methyl bromide)	ND	250	260	5		102	0.80	36-168	20	08/28/2014 2142
2-Butanone (MEK)	ND	500	460	5		92	3.8	60-140	20	08/28/2014 2142
Carbon disulfide	ND	250	270	5		109	2.4	60-140	20	08/28/2014 2142
Carbon tetrachloride	ND	250	270	5		107	3.3	37-166	20	08/28/2014 2142
Chlorobenzene	ND	250	280	5		113	3.1	78-129	20	08/28/2014 2142
Chloroethane	ND	250	280	5		112	1.4	60-140	20	08/28/2014 2142
Chloroform	ND	250	280	5		112	2.8	63-123	20	08/28/2014 2142
Chloromethane (Methyl chloride)	ND	250	290	5		115	0.52	20-158	20	08/28/2014 2142
Cyclohexane	ND	250	230	5		93	2.0	70-130	20	08/28/2014 2142
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	220	5		90	7.9	70-130	20	08/28/2014 2142
Dibromochloromethane	ND	250	260	5		103	3.6	74-134	20	08/28/2014 2142
1,2-Dibromoethane (EDB)	ND	250	280	5		114	4.5	70-130	20	08/28/2014 2142
1,2-Dichlorobenzene	ND	250	270	5		108	2.6	70-130	20	08/28/2014 2142
1,3-Dichlorobenzene	ND	250	280	5		110	3.4	70-130	20	08/28/2014 2142
1,4-Dichlorobenzene	ND	250	280	5		110	4.3	70-130	20	08/28/2014 2142
Dichlorodifluoromethane	ND	250	310	5		123	0.81	10-158	20	08/28/2014 2142
1,1-Dichloroethane	ND	250	280	5		111	4.1	69-132	20	08/28/2014 2142
1,2-Dichloroethane	ND	250	270	5		108	3.4	70-130	20	08/28/2014 2142
1,1-Dichloroethene	ND	250	260	5		104	1.1	50-132	20	08/28/2014 2142
cis-1,2-Dichloroethene	ND	250	280	5		113	3.6	70-130	20	08/28/2014 2142
trans-1,2-Dichloroethene	ND	250	280	5		114	4.0	70-130	20	08/28/2014 2142
1,2-Dichloropropane	ND	250	270	5		109	2.9	71-126	20	08/28/2014 2142
cis-1,3-Dichloropropene	ND	250	250	5		101	4.6	69-130	20	08/28/2014 2142
trans-1,3-Dichloropropene	ND	250	240	5		96	4.2	73-131	20	08/28/2014 2142
Ethylbenzene	ND	250	290	5		115	2.7	70-130	20	08/28/2014 2142
2-Hexanone	ND	500	520	5		105	3.0	60-140	20	08/28/2014 2142
Isopropylbenzene	ND	250	270	5		110	1.6	70-130	20	08/28/2014 2142
Methyl acetate	ND	250	150	5		61	0.73	15-128	20	08/28/2014 2142
Methyl tertiary butyl ether (MTBE)	ND	250	260	5		105	0.75	70-130	20	08/28/2014 2142
4-Methyl-2-pentanone	ND	500	530	5		107	6.1	60-140	20	08/28/2014 2142
Methylcyclohexane	ND	250	270	5		109	1.2	70-130	20	08/28/2014 2142
Methylene chloride	ND	250	250	5		99	4.8	69-129	20	08/28/2014 2142
Styrene	ND	250	260	5		103	2.1	70-130	20	08/28/2014 2142
1,1,2,2-Tetrachloroethane	ND	250	270	5		110	4.9	60-155	20	08/28/2014 2142
Tetrachloroethene	ND	250	290	5		118	1.1	70-130	20	08/28/2014 2142
Toluene	ND	250	290	5		116	3.3	70-130	20	08/28/2014 2142
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	250	5		101	8.1	70-130	20	08/28/2014 2142
1,2,4-Trichlorobenzene	ND	250	230	5		94	1.3	70-130	20	08/28/2014 2142
1,1,1-Trichloroethane	ND	250	280	5		111	0.26	77-132	20	08/28/2014 2142
1,1,2-Trichloroethane	ND	250	280	5		112	3.6	77-132	20	08/28/2014 2142

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH22039-002MD

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date	
Trichloroethene	ND	250	300		5	120	3.1	73-124	20	08/28/2014 2142	
Trichlorofluoromethane	ND	250	260		5	106	0.18	60-140	20	08/28/2014 2142	
Vinyl chloride	ND	250	290		5	117	1.2	29-159	20	08/28/2014 2142	
Xylenes (total)	ND	500	570		5	114	2.9	70-130	20	08/28/2014 2142	
Surrogate	Q	% Rec	Acceptance Limit								
1,2-Dichloroethane-d4		97	70-130								
Bromofluorobenzene		99	70-130								
Toluene-d8		104	70-130								

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: mam/082214 Lot #: PH22039

Means of receipt: <input type="checkbox"/> SFSI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>123/12.4</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mam</u> Verified by: <u>mam</u> Date: <u>8/22/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH26027 were collected on August 25-26, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308**

Lot Number: **PH26027**

Date Completed: **08/29/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH26027 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH26027

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH26027

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TMW-79-35	Aqueous	08/25/2014 0945	08/26/2014
002	TMW-86-24	Aqueous	08/25/2014 1025	08/26/2014
003	TMW-89-19	Aqueous	08/25/2014 1515	08/26/2014
004	TMW-98-12	Aqueous	08/25/2014 1435	08/26/2014
005	TMW-93-25	Aqueous	08/25/2014 1450	08/26/2014
006	TMW-97-10	Aqueous	08/25/2014 1505	08/26/2014
007	TMW-95-11	Aqueous	08/25/2014 1520	08/26/2014
008	TB	Aqueous	08/25/2014	08/26/2014

(8 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH26027

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TMW-79-35	Aqueous	1,1-Dichloroethane	8260B	1.7	J	ug/L	5
001	TMW-79-35	Aqueous	1,1-Dichloroethene	8260B	4.6	J	ug/L	5
001	TMW-79-35	Aqueous	cis-1,2-Dichloroethene	8260B	98		ug/L	5
001	TMW-79-35	Aqueous	Trichloroethene	8260B	260		ug/L	6
002	TMW-86-24	Aqueous	Trichloroethene	8260B	40		ug/L	8
003	TMW-89-19	Aqueous	cis-1,2-Dichloroethene	8260B	0.98	J	ug/L	9
003	TMW-89-19	Aqueous	Trichloroethene	8260B	5.1		ug/L	10
004	TMW-98-12	Aqueous	Trichloroethene	8260B	8.6		ug/L	12
005	TMW-93-25	Aqueous	Trichloroethene	8260B	56		ug/L	14
006	TMW-97-10	Aqueous	Trichloroethene	8260B	18		ug/L	16
007	TMW-95-11	Aqueous	cis-1,2-Dichloroethene	8260B	0.82	J	ug/L	17
007	TMW-95-11	Aqueous	Trichloroethene	8260B	25		ug/L	18

(12 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-001
Description: TMW-79-35	Matrix: Aqueous
Date Sampled: 08/25/2014 0945	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2014 0839	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	1.7	J	25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	4.6	J	25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	98		25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-001
Description: TMW-79-35	Matrix: Aqueous
Date Sampled: 08/25/2014 0945	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/28/2014 0839	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	260		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-002
Description: TMW-86-24	Matrix: Aqueous
Date Sampled: 08/25/2014 1025	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0147	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-002
Description: TMW-86-24	Matrix: Aqueous
Date Sampled: 08/25/2014 1025	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0147	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	40		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-003
Description: TMW-89-19	Matrix: Aqueous
Date Sampled: 08/25/2014 1515	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0210	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.98	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-003
Description: TMW-89-19	Matrix: Aqueous
Date Sampled: 08/25/2014 1515	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0210	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	5.1		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-004
Description: TMW-98-12	Matrix: Aqueous
Date Sampled: 08/25/2014 1435	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0233	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-004
Description: TMW-98-12	Matrix: Aqueous
Date Sampled: 08/25/2014 1435	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0233	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	8.6		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-005
Description: TMW-93-25	Matrix: Aqueous
Date Sampled: 08/25/2014 1450	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0256	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-005
Description: TMW-93-25	Matrix: Aqueous
Date Sampled: 08/25/2014 1450	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0256	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	56		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-006
Description: TMW-97-10	Matrix: Aqueous
Date Sampled: 08/25/2014 1505	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0319	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-006
Description: TMW-97-10	Matrix: Aqueous
Date Sampled: 08/25/2014 1505	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0319	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	18		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-007
Description: TMW-95-11	Matrix: Aqueous
Date Sampled: 08/25/2014 1520	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0342	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.82	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-007
Description: TMW-95-11	Matrix: Aqueous
Date Sampled: 08/25/2014 1520	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0342	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	25		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-008
Description: TB	Matrix: Aqueous
Date Sampled: 08/25/2014	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0125	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH26027-008
Description: TB	Matrix: Aqueous
Date Sampled: 08/25/2014	
Date Received: 08/26/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 0125	PMM2		54966

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54966-001

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/28/2014 0102
Benzene	ND		1	5.0	0.20	ug/L	08/28/2014 0102
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Bromoform	ND		1	5.0	0.40	ug/L	08/28/2014 0102
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/28/2014 0102
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/28/2014 0102
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/28/2014 0102
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/28/2014 0102
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Chloroethane	ND		1	5.0	0.50	ug/L	08/28/2014 0102
Chloroform	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/28/2014 0102
Cyclohexane	ND		1	5.0	0.98	ug/L	08/28/2014 0102
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/28/2014 0102
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 0102
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/28/2014 0102
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/28/2014 0102
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 0102
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/28/2014 0102
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/28/2014 0102
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 0102
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 0102
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
2-Hexanone	ND		1	10	1.0	ug/L	08/28/2014 0102
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/28/2014 0102
Methyl acetate	ND		1	5.0	0.72	ug/L	08/28/2014 0102
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2014 0102
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/28/2014 0102
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/28/2014 0102
Methylene chloride	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Styrene	ND		1	5.0	0.10	ug/L	08/28/2014 0102
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/28/2014 0102
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 0102
Toluene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 0102
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/28/2014 0102

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ54966-001

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/28/2014 0102
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/28/2014 0102
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/28/2014 0102
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2014 0102
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		101	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		103	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54966-002

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	60-140	08/27/2014 2331
Benzene	50	56		1	112	70-130	08/27/2014 2331
Bromodichloromethane	50	58		1	116	70-130	08/27/2014 2331
Bromoform	50	51		1	101	70-130	08/27/2014 2331
Bromomethane (Methyl bromide)	50	51		1	102	60-140	08/27/2014 2331
2-Butanone (MEK)	100	100		1	102	60-140	08/27/2014 2331
Carbon disulfide	50	56		1	113	60-140	08/27/2014 2331
Carbon tetrachloride	50	53		1	106	70-130	08/27/2014 2331
Chlorobenzene	50	56		1	112	70-130	08/27/2014 2331
Chloroethane	50	57		1	114	42-163	08/27/2014 2331
Chloroform	50	57		1	113	70-130	08/27/2014 2331
Chloromethane (Methyl chloride)	50	60		1	120	60-140	08/27/2014 2331
Cyclohexane	50	54		1	107	70-130	08/27/2014 2331
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	08/27/2014 2331
Dibromochloromethane	50	52		1	103	70-130	08/27/2014 2331
1,2-Dibromoethane (EDB)	50	57		1	114	70-130	08/27/2014 2331
1,3-Dichlorobenzene	50	56		1	112	70-130	08/27/2014 2331
1,4-Dichlorobenzene	50	56		1	112	70-130	08/27/2014 2331
1,2-Dichlorobenzene	50	56		1	111	70-130	08/27/2014 2331
Dichlorodifluoromethane	50	63		1	126	60-140	08/27/2014 2331
1,2-Dichloroethane	50	56		1	113	70-130	08/27/2014 2331
1,1-Dichloroethane	50	56		1	113	70-130	08/27/2014 2331
trans-1,2-Dichloroethene	50	57		1	113	70-130	08/27/2014 2331
1,1-Dichloroethene	50	52		1	104	70-130	08/27/2014 2331
cis-1,2-Dichloroethene	50	57		1	115	70-130	08/27/2014 2331
1,2-Dichloropropane	50	55		1	110	70-130	08/27/2014 2331
trans-1,3-Dichloropropene	50	51		1	101	70-130	08/27/2014 2331
cis-1,3-Dichloropropene	50	52		1	104	70-130	08/27/2014 2331
Ethylbenzene	50	57		1	114	70-130	08/27/2014 2331
2-Hexanone	100	110		1	109	60-140	08/27/2014 2331
Isopropylbenzene	50	57		1	114	70-130	08/27/2014 2331
Methyl acetate	50	36		1	73	60-140	08/27/2014 2331
Methyl tertiary butyl ether (MTBE)	50	54		1	109	70-130	08/27/2014 2331
4-Methyl-2-pentanone	100	110		1	108	60-140	08/27/2014 2331
Methylcyclohexane	50	60		1	120	70-130	08/27/2014 2331
Methylene chloride	50	51		1	102	70-130	08/27/2014 2331
Styrene	50	52		1	103	70-130	08/27/2014 2331
1,1,2,2-Tetrachloroethane	50	57		1	113	70-130	08/27/2014 2331
Tetrachloroethene	50	57		1	115	70-130	08/27/2014 2331
Toluene	50	57		1	113	70-130	08/27/2014 2331
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	59		1	118	70-130	08/27/2014 2331
1,2,4-Trichlorobenzene	50	50		1	99	70-130	08/27/2014 2331
1,1,2-Trichloroethane	50	57		1	114	70-130	08/27/2014 2331
1,1,1-Trichloroethane	50	59		1	119	70-130	08/27/2014 2331

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ54966-002

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	58		1	116	70-130	08/27/2014 2331
Trichlorofluoromethane	50	54		1	108	70-130	08/27/2014 2331
Vinyl chloride	50	60		1	119	70-130	08/27/2014 2331
Xylenes (total)	100	110		1	114	70-130	08/27/2014 2331
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		101	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54966-003

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	140	+	1	139	25	60-140	20	08/27/2014 2354
Benzene	50	56		1	111	0.97	70-130	20	08/27/2014 2354
Bromodichloromethane	50	57		1	115	0.79	70-130	20	08/27/2014 2354
Bromoform	50	51		1	103	1.4	70-130	20	08/27/2014 2354
Bromomethane (Methyl bromide)	50	51		1	101	0.33	60-140	20	08/27/2014 2354
2-Butanone (MEK)	100	110		1	110	7.6	60-140	20	08/27/2014 2354
Carbon disulfide	50	55		1	109	3.0	60-140	20	08/27/2014 2354
Carbon tetrachloride	50	49		1	99	7.3	70-130	20	08/27/2014 2354
Chlorobenzene	50	56		1	112	0.36	70-130	20	08/27/2014 2354
Chloroethane	50	55		1	111	2.5	42-163	20	08/27/2014 2354
Chloroform	50	56		1	112	1.5	70-130	20	08/27/2014 2354
Chloromethane (Methyl chloride)	50	58		1	116	3.7	60-140	20	08/27/2014 2354
Cyclohexane	50	51		1	102	4.7	70-130	20	08/27/2014 2354
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	99	3.6	70-130	20	08/27/2014 2354
Dibromochloromethane	50	51		1	101	2.1	70-130	20	08/27/2014 2354
1,2-Dibromoethane (EDB)	50	57		1	114	0.13	70-130	20	08/27/2014 2354
1,3-Dichlorobenzene	50	56		1	112	0.046	70-130	20	08/27/2014 2354
1,4-Dichlorobenzene	50	57		1	114	1.6	70-130	20	08/27/2014 2354
1,2-Dichlorobenzene	50	57		1	114	2.1	70-130	20	08/27/2014 2354
Dichlorodifluoromethane	50	64		1	127	0.90	60-140	20	08/27/2014 2354
1,2-Dichloroethane	50	56		1	113	0.15	70-130	20	08/27/2014 2354
1,1-Dichloroethane	50	56		1	112	0.089	70-130	20	08/27/2014 2354
trans-1,2-Dichloroethene	50	57		1	114	0.39	70-130	20	08/27/2014 2354
1,1-Dichloroethene	50	52		1	104	0.43	70-130	20	08/27/2014 2354
cis-1,2-Dichloroethene	50	57		1	113	1.6	70-130	20	08/27/2014 2354
1,2-Dichloropropane	50	55		1	110	0.33	70-130	20	08/27/2014 2354
trans-1,3-Dichloropropene	50	50		1	100	1.0	70-130	20	08/27/2014 2354
cis-1,3-Dichloropropene	50	52		1	103	0.42	70-130	20	08/27/2014 2354
Ethylbenzene	50	56		1	112	1.4	70-130	20	08/27/2014 2354
2-Hexanone	100	110		1	113	3.6	60-140	20	08/27/2014 2354
Isopropylbenzene	50	56		1	112	1.8	70-130	20	08/27/2014 2354
Methyl acetate	50	40		1	80	9.6	60-140	20	08/27/2014 2354
Methyl tertiary butyl ether (MTBE)	50	56		1	113	3.6	70-130	20	08/27/2014 2354
4-Methyl-2-pentanone	100	110		1	114	5.4	60-140	20	08/27/2014 2354
Methylcyclohexane	50	59		1	117	2.7	70-130	20	08/27/2014 2354
Methylene chloride	50	51		1	101	1.0	70-130	20	08/27/2014 2354
Styrene	50	52		1	104	0.59	70-130	20	08/27/2014 2354
1,1,2,2-Tetrachloroethane	50	58		1	115	1.9	70-130	20	08/27/2014 2354
Tetrachloroethene	50	57		1	115	0.012	70-130	20	08/27/2014 2354
Toluene	50	57		1	113	0.29	70-130	20	08/27/2014 2354
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	17	70-130	20	08/27/2014 2354
1,2,4-Trichlorobenzene	50	51		1	102	2.9	70-130	20	08/27/2014 2354
1,1,2-Trichloroethane	50	57		1	113	0.58	70-130	20	08/27/2014 2354
1,1,1-Trichloroethane	50	56		1	111	6.9	70-130	20	08/27/2014 2354

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ54966-003

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	58		1	115	0.38	70-130	20	08/27/2014 2354
Trichlorofluoromethane	50	54		1	108	0.22	70-130	20	08/27/2014 2354
Vinyl chloride	50	59		1	117	1.7	70-130	20	08/27/2014 2354
Xylenes (total)	100	110		1	114	0.47	70-130	20	08/27/2014 2354
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		102	70-130						
1,2-Dichloroethane-d4		100	70-130						
Toluene-d8		105	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH26027-001MS

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	550		5	111	60-140	08/28/2014 0902
Benzene	ND	250	300		5	119	70-130	08/28/2014 0902
Bromodichloromethane	ND	250	300		5	118	71-143	08/28/2014 0902
Bromoform	ND	250	240		5	95	65-131	08/28/2014 0902
Bromomethane (Methyl bromide)	ND	250	290		5	116	36-168	08/28/2014 0902
2-Butanone (MEK)	ND	500	520		5	103	60-140	08/28/2014 0902
Carbon disulfide	ND	250	300		5	118	60-140	08/28/2014 0902
Carbon tetrachloride	ND	250	280		5	112	37-166	08/28/2014 0902
Chlorobenzene	ND	250	290		5	116	78-129	08/28/2014 0902
Chloroethane	ND	250	300		5	121	60-140	08/28/2014 0902
Chloroform	ND	250	290		5	118	63-123	08/28/2014 0902
Chloromethane (Methyl chloride)	ND	250	310		5	123	20-158	08/28/2014 0902
Cyclohexane	ND	250	270		5	107	70-130	08/28/2014 0902
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	220		5	87	70-130	08/28/2014 0902
Dibromochloromethane	ND	250	250		5	100	74-134	08/28/2014 0902
1,2-Dibromoethane (EDB)	ND	250	290		5	114	70-130	08/28/2014 0902
1,2-Dichlorobenzene	ND	250	290		5	114	70-130	08/28/2014 0902
1,3-Dichlorobenzene	ND	250	290		5	115	70-130	08/28/2014 0902
1,4-Dichlorobenzene	ND	250	280		5	114	70-130	08/28/2014 0902
Dichlorodifluoromethane	ND	250	350		5	139	10-158	08/28/2014 0902
1,1-Dichloroethane	1.7	250	300		5	118	69-132	08/28/2014 0902
1,2-Dichloroethane	ND	250	290		5	114	70-130	08/28/2014 0902
1,1-Dichloroethene	4.6	250	270		5	108	50-132	08/28/2014 0902
cis-1,2-Dichloroethene	98	250	400		5	121	70-130	08/28/2014 0902
trans-1,2-Dichloroethene	ND	250	300		5	121	70-130	08/28/2014 0902
1,2-Dichloropropane	ND	250	280		5	114	71-126	08/28/2014 0902
cis-1,3-Dichloropropene	ND	250	250		5	100	69-130	08/28/2014 0902
trans-1,3-Dichloropropene	ND	250	240		5	95	73-131	08/28/2014 0902
Ethylbenzene	ND	250	300		5	119	70-130	08/28/2014 0902
2-Hexanone	ND	500	520		5	104	60-140	08/28/2014 0902
Isopropylbenzene	ND	250	290		5	115	70-130	08/28/2014 0902
Methyl acetate	ND	250	180		5	73	15-128	08/28/2014 0902
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	109	70-130	08/28/2014 0902
4-Methyl-2-pentanone	ND	500	530		5	106	60-140	08/28/2014 0902
Methylcyclohexane	ND	250	310		5	122	70-130	08/28/2014 0902
Methylene chloride	ND	250	260		5	106	69-129	08/28/2014 0902
Styrene	ND	250	260		5	105	70-130	08/28/2014 0902
1,1,2,2-Tetrachloroethane	ND	250	280		5	112	60-155	08/28/2014 0902
Tetrachloroethene	ND	250	310		5	123	70-130	08/28/2014 0902
Toluene	ND	250	300		5	119	70-130	08/28/2014 0902
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	280		5	113	70-130	08/28/2014 0902
1,2,4-Trichlorobenzene	ND	250	240		5	96	70-130	08/28/2014 0902
1,1,1-Trichloroethane	ND	250	310		5	123	77-132	08/28/2014 0902
1,1,2-Trichloroethane	ND	250	290		5	115	77-132	08/28/2014 0902

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PH26027-001MS

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	260	250	570		5	123	73-124	08/28/2014 0902
Trichlorofluoromethane	ND	250	280		5	114	60-140	08/28/2014 0902
Vinyl chloride	ND	250	320		5	128	29-159	08/28/2014 0902
Xylenes (total)	ND	500	590		5	118	70-130	08/28/2014 0902
Surrogate	Q	% Rec	Acceptance Limit					
1,2-Dichloroethane-d4		100	70-130					
Bromofluorobenzene		100	70-130					
Toluene-d8		104	70-130					

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH26027-001MD

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	450	+	5	90	21	60-140	20	08/28/2014 0924
Benzene	ND	250	290		5	117	2.1	70-130	20	08/28/2014 0924
Bromodichloromethane	ND	250	290		5	117	1.4	71-143	20	08/28/2014 0924
Bromoform	ND	250	240		5	95	0.14	65-131	20	08/28/2014 0924
Bromomethane (Methyl bromide)	ND	250	280		5	111	4.8	36-168	20	08/28/2014 0924
2-Butanone (MEK)	ND	500	480		5	97	6.6	60-140	20	08/28/2014 0924
Carbon disulfide	ND	250	280		5	113	4.6	60-140	20	08/28/2014 0924
Carbon tetrachloride	ND	250	270		5	109	2.6	37-166	20	08/28/2014 0924
Chlorobenzene	ND	250	290		5	116	0.36	78-129	20	08/28/2014 0924
Chloroethane	ND	250	290		5	116	4.6	60-140	20	08/28/2014 0924
Chloroform	ND	250	290		5	114	3.3	63-123	20	08/28/2014 0924
Chloromethane (Methyl chloride)	ND	250	290		5	116	6.1	20-158	20	08/28/2014 0924
Cyclohexane	ND	250	260		5	104	2.9	70-130	20	08/28/2014 0924
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	84	3.0	70-130	20	08/28/2014 0924
Dibromochloromethane	ND	250	250		5	101	1.1	74-134	20	08/28/2014 0924
1,2-Dibromoethane (EDB)	ND	250	290		5	114	0.14	70-130	20	08/28/2014 0924
1,2-Dichlorobenzene	ND	250	280		5	111	3.0	70-130	20	08/28/2014 0924
1,3-Dichlorobenzene	ND	250	290		5	114	1.2	70-130	20	08/28/2014 0924
1,4-Dichlorobenzene	ND	250	280		5	113	0.40	70-130	20	08/28/2014 0924
Dichlorodifluoromethane	ND	250	330		5	132	5.4	10-158	20	08/28/2014 0924
1,1-Dichloroethane	1.7	250	280		5	113	3.8	69-132	20	08/28/2014 0924
1,2-Dichloroethane	ND	250	280		5	110	3.6	70-130	20	08/28/2014 0924
1,1-Dichloroethene	4.6	250	270		5	107	0.83	50-132	20	08/28/2014 0924
cis-1,2-Dichloroethene	98	250	380		5	114	4.4	70-130	20	08/28/2014 0924
trans-1,2-Dichloroethene	ND	250	290		5	117	3.4	70-130	20	08/28/2014 0924
1,2-Dichloropropane	ND	250	280		5	112	1.5	71-126	20	08/28/2014 0924
cis-1,3-Dichloropropene	ND	250	250		5	100	0.53	69-130	20	08/28/2014 0924
trans-1,3-Dichloropropene	ND	250	240		5	96	1.7	73-131	20	08/28/2014 0924
Ethylbenzene	ND	250	300		5	119	0.62	70-130	20	08/28/2014 0924
2-Hexanone	ND	500	540		5	108	4.1	60-140	20	08/28/2014 0924
Isopropylbenzene	ND	250	290		5	117	2.1	70-130	20	08/28/2014 0924
Methyl acetate	ND	250	170		5	66	9.9	15-128	20	08/28/2014 0924
Methyl tertiary butyl ether (MTBE)	ND	250	260		5	106	3.2	70-130	20	08/28/2014 0924
4-Methyl-2-pentanone	ND	500	530		5	106	0.35	60-140	20	08/28/2014 0924
Methylcyclohexane	ND	250	300		5	120	2.1	70-130	20	08/28/2014 0924
Methylene chloride	ND	250	250		5	102	3.9	69-129	20	08/28/2014 0924
Styrene	ND	250	270		5	106	0.83	70-130	20	08/28/2014 0924
1,1,2,2-Tetrachloroethane	ND	250	280		5	111	0.74	60-155	20	08/28/2014 0924
Tetrachloroethene	ND	250	310		5	123	0.35	70-130	20	08/28/2014 0924
Toluene	ND	250	300		5	118	0.32	70-130	20	08/28/2014 0924
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	290		5	118	4.1	70-130	20	08/28/2014 0924
1,2,4-Trichlorobenzene	ND	250	240		5	95	0.34	70-130	20	08/28/2014 0924
1,1,1-Trichloroethane	ND	250	290		5	117	4.9	77-132	20	08/28/2014 0924
1,1,2-Trichloroethane	ND	250	290		5	115	0.0014	77-132	20	08/28/2014 0924

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PH26027-001MD

Matrix: Aqueous

Batch: 54966

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	260	250	550		5	114	4.2	73-124	20	08/28/2014 0924
Trichlorofluoromethane	ND	250	280		5	112	0.95	60-140	20	08/28/2014 0924
Vinyl chloride	ND	250	300		5	120	6.4	29-159	20	08/28/2014 0924
Xylenes (total)	ND	500	590		5	119	0.41	70-130	20	08/28/2014 0924
Surrogate	Q	% Rec	Acceptance Limit							
1,2-Dichloroethane-d4		99	70-130							
Bromofluorobenzene		101	70-130							
Toluene-d8		106	70-130							

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
 106 Vantage Point Drive
 West Columbia, South Carolina 29172
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 105650

Client: AELCOM Telephone No. / Fax No. / E-mail: scott.ross@aecom.com Quote No. _____

Address: _____ Maybill No. _____ Page 1 of 1

City: _____ State: _____ Zip Code: _____

Project Name: Shakespear

Project No.: 603218308

Sampler's Signature: [Signature] Printed Name: Justin Butler

Analysis (Attach list if more spaces is needed):

Sample ID / Description (Containers for each sample may be combined on one line.)	P.O. No.	Date	Time	Matrix			No. of Containers by Preservative Type					Disposition	Sample Disposal		
				Acidic	Neutral	Alkaline	Cryst	H2SO4	HNO3	HCl	HClO4			Other	
TMW-79-35		8/25/14	0945	6	X									X	
TMW-86-24		8/25/14	1025	6	X									X	
TMW-89-19		8/25/14	1515	6	X									X	
TMW-98-12		8/26/14	1425	6	X									X	
TMW-93-25		8/26/14	1450	6	X									X	
TMW-97-10		8/26/14	1505	6	X									X	
TMW-95-11		8/24/14	1520	6	X									X	
TB		8/25/14			X									X	

Notes: All samples are retained for six weeks from receipt unless other arrangements are made.

QC Requirements (Specify):

Turn Around Time: _____ (Prior lab approval required for expedited TAT.)

1. Requisitioned by: [Signature] Date: 8/26/14 Time: 1630

2. Requisitioned by: [Signature] Date: 8/26/14 Time: 1625

3. Requisitioned by: [Signature] Date: 8/26/14 Time: 1625

1. Received by: [Signature] Date: 8/26/14 Time: 1530

2. Received by: _____ Date: _____ Time: _____

3. Laboratory analyzed by: _____ Date: 8/26/14 Time: 1625

Comments: _____

LAB USE ONLY: Analyzed on: Ice (Check) Yes No Ice Pack _____ Receipt Temp. 2-1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Chain Copy

Document Number: F-40-012 Effective Date: 08-04-02

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM

Cooler Inspected by/date: mam/8/26/14 Lot #: PH26027

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>12.0/2.1</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mam</u> Verified by: <u>mam</u> Date: <u>8/26/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH27059 were collected on August 27, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

All results of acetone associated with preparatory batch 55019 were qualified “/J/E” due to the relative percent difference between the laboratory control sample and laboratory control sample duplicate exceeding the established criteria of 25% (35%). These qualifiers indicate imprecision with laboratory methodology, instrumentation, or matrix interference.

Data Summary and Usability

The QC excursions encountered during the validation of this data set did not result in the rejection of any data. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

- United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*
- United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*
- United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.
- United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308**

Lot Number: **PH27059**

Date Completed: **08/29/2014**



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH27059 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH27059

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH27059

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RDW-1	Aqueous	08/27/2014 0840	08/27/2014
002	RDW-2	Aqueous	08/27/2014 0820	08/27/2014
003	TMW-99-18	Aqueous	08/27/2014 1035	08/27/2014
004	TMW-87-18	Aqueous	08/27/2014 1050	08/27/2014
005	TMW-100-30	Aqueous	08/27/2014 1605	08/27/2014
006	TB-082714	Aqueous	08/27/2014	08/27/2014

(6 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH27059

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RDW-1	Aqueous	1,1-Dichloroethane	8260B	0.43	J	ug/L	5
001	RDW-1	Aqueous	cis-1,2-Dichloroethene	8260B	3.5	J	ug/L	5
001	RDW-1	Aqueous	Tetrachloroethene	8260B	1.3	J	ug/L	5
001	RDW-1	Aqueous	Trichloroethene	8260B	190		ug/L	6
002	RDW-2	Aqueous	Chloroform	8260B	2.9	J	ug/L	7
003	TMW-99-18	Aqueous	Trichloroethene	8260B	74		ug/L	10
004	TMW-87-18	Aqueous	Acetone	8260B	18	J	ug/L	11
004	TMW-87-18	Aqueous	2-Butanone (MEK)	8260B	3.0	J	ug/L	11

(8 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-001
Description: RDW-1	Matrix: Aqueous
Date Sampled: 08/27/2014 0840	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1504	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.43	J	5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.5	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.3	J	5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-001
Description: RDW-1	Matrix: Aqueous
Date Sampled: 08/27/2014 0840	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1504	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	190		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-002
Description: RDW-2	Matrix: Aqueous
Date Sampled: 08/27/2014 0820	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1527	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	2.9	J	5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-002
Description: RDW-2	Matrix: Aqueous
Date Sampled: 08/27/2014 0820	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1527	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-003
Description: TMW-99-18	Matrix: Aqueous
Date Sampled: 08/27/2014 1035	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1550	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-003
Description: TMW-99-18	Matrix: Aqueous
Date Sampled: 08/27/2014 1035	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1550	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	74		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-004
Description: TMW-87-18	Matrix: Aqueous
Date Sampled: 08/27/2014 1050	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1620	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	18	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	3.0	J	10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-004
Description: TMW-87-18	Matrix: Aqueous
Date Sampled: 08/27/2014 1050	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1620	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-005
Description: TMW-100-30	Matrix: Aqueous
Date Sampled: 08/27/2014 1605	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1643	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-005
Description: TMW-100-30	Matrix: Aqueous
Date Sampled: 08/27/2014 1605	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1643	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-006
Description: TB-082714	Matrix: Aqueous
Date Sampled: 08/27/2014	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1707	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH27059-006
Description: TB-082714	Matrix: Aqueous
Date Sampled: 08/27/2014	
Date Received: 08/27/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/28/2014 1707	JHD		55019

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55019-001

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/28/2014 1246
Benzene	ND		1	5.0	0.20	ug/L	08/28/2014 1246
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Bromoform	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/28/2014 1246
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/28/2014 1246
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Chloroethane	ND		1	5.0	0.50	ug/L	08/28/2014 1246
Chloroform	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Cyclohexane	ND		1	5.0	0.98	ug/L	08/28/2014 1246
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/28/2014 1246
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 1246
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/28/2014 1246
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
2-Hexanone	ND		1	10	1.0	ug/L	08/28/2014 1246
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/28/2014 1246
Methyl acetate	ND		1	5.0	0.72	ug/L	08/28/2014 1246
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/28/2014 1246
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/28/2014 1246
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/28/2014 1246
Methylene chloride	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Styrene	ND		1	5.0	0.10	ug/L	08/28/2014 1246
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/28/2014 1246
Toluene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/28/2014 1246
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/28/2014 1246
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55019-001

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/28/2014 1246
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/28/2014 1246
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/28/2014 1246
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		103	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55019-002

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	08/28/2014 1115
Benzene	50	55		1	110	70-130	08/28/2014 1115
Bromodichloromethane	50	56		1	113	70-130	08/28/2014 1115
Bromoform	50	48		1	96	70-130	08/28/2014 1115
Bromomethane (Methyl bromide)	50	51		1	101	60-140	08/28/2014 1115
2-Butanone (MEK)	100	110		1	106	60-140	08/28/2014 1115
Carbon disulfide	50	52		1	103	60-140	08/28/2014 1115
Carbon tetrachloride	50	50		1	100	70-130	08/28/2014 1115
Chlorobenzene	50	55		1	109	70-130	08/28/2014 1115
Chloroethane	50	53		1	106	42-163	08/28/2014 1115
Chloroform	50	55		1	110	70-130	08/28/2014 1115
Chloromethane (Methyl chloride)	50	55		1	110	60-140	08/28/2014 1115
Cyclohexane	50	47		1	94	70-130	08/28/2014 1115
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	08/28/2014 1115
Dibromochloromethane	50	49		1	98	70-130	08/28/2014 1115
1,2-Dibromoethane (EDB)	50	56		1	111	70-130	08/28/2014 1115
1,4-Dichlorobenzene	50	56		1	111	70-130	08/28/2014 1115
1,3-Dichlorobenzene	50	55		1	111	70-130	08/28/2014 1115
1,2-Dichlorobenzene	50	55		1	110	70-130	08/28/2014 1115
Dichlorodifluoromethane	50	59		1	118	60-140	08/28/2014 1115
1,1-Dichloroethane	50	54		1	107	70-130	08/28/2014 1115
1,2-Dichloroethane	50	54		1	108	70-130	08/28/2014 1115
trans-1,2-Dichloroethene	50	55		1	109	70-130	08/28/2014 1115
cis-1,2-Dichloroethene	50	55		1	111	70-130	08/28/2014 1115
1,1-Dichloroethene	50	49		1	99	70-130	08/28/2014 1115
1,2-Dichloropropane	50	54		1	108	70-130	08/28/2014 1115
cis-1,3-Dichloropropene	50	50		1	101	70-130	08/28/2014 1115
trans-1,3-Dichloropropene	50	48		1	96	70-130	08/28/2014 1115
Ethylbenzene	50	56		1	113	70-130	08/28/2014 1115
2-Hexanone	100	110		1	107	60-140	08/28/2014 1115
Isopropylbenzene	50	55		1	109	70-130	08/28/2014 1115
Methyl acetate	50	37		1	75	60-140	08/28/2014 1115
Methyl tertiary butyl ether (MTBE)	50	54		1	107	70-130	08/28/2014 1115
4-Methyl-2-pentanone	100	110		1	108	60-140	08/28/2014 1115
Methylcyclohexane	50	56		1	112	70-130	08/28/2014 1115
Methylene chloride	50	49		1	98	70-130	08/28/2014 1115
Styrene	50	51		1	102	70-130	08/28/2014 1115
1,1,2,2-Tetrachloroethane	50	55		1	111	70-130	08/28/2014 1115
Tetrachloroethene	50	56		1	112	70-130	08/28/2014 1115
Toluene	50	56		1	111	70-130	08/28/2014 1115
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	110	70-130	08/28/2014 1115
1,2,4-Trichlorobenzene	50	48		1	97	70-130	08/28/2014 1115
1,1,1-Trichloroethane	50	55		1	110	70-130	08/28/2014 1115
1,1,2-Trichloroethane	50	55		1	110	70-130	08/28/2014 1115

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55019-002

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	56		1	113	70-130	08/28/2014 1115
Trichlorofluoromethane	50	49		1	99	70-130	08/28/2014 1115
Vinyl chloride	50	55		1	110	70-130	08/28/2014 1115
Xylenes (total)	100	110		1	112	70-130	08/28/2014 1115
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		101	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55019-003

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	95	+	1	95	35	60-140	20	08/28/2014 1138
Benzene	50	54		1	109	0.91	70-130	20	08/28/2014 1138
Bromodichloromethane	50	55		1	110	2.5	70-130	20	08/28/2014 1138
Bromoform	50	46		1	91	4.6	70-130	20	08/28/2014 1138
Bromomethane (Methyl bromide)	50	49		1	98	3.0	60-140	20	08/28/2014 1138
2-Butanone (MEK)	100	96		1	96	10	60-140	20	08/28/2014 1138
Carbon disulfide	50	50		1	99	3.9	60-140	20	08/28/2014 1138
Carbon tetrachloride	50	48		1	96	3.9	70-130	20	08/28/2014 1138
Chlorobenzene	50	54		1	108	0.88	70-130	20	08/28/2014 1138
Chloroethane	50	51		1	103	3.0	42-163	20	08/28/2014 1138
Chloroform	50	53		1	105	4.6	70-130	20	08/28/2014 1138
Chloromethane (Methyl chloride)	50	53		1	106	3.7	60-140	20	08/28/2014 1138
Cyclohexane	50	46		1	91	3.7	70-130	20	08/28/2014 1138
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	81	8.5	70-130	20	08/28/2014 1138
Dibromochloromethane	50	48		1	96	2.3	70-130	20	08/28/2014 1138
1,2-Dibromoethane (EDB)	50	55		1	110	1.4	70-130	20	08/28/2014 1138
1,4-Dichlorobenzene	50	54		1	108	3.3	70-130	20	08/28/2014 1138
1,3-Dichlorobenzene	50	54		1	107	3.1	70-130	20	08/28/2014 1138
1,2-Dichlorobenzene	50	53		1	106	2.8	70-130	20	08/28/2014 1138
Dichlorodifluoromethane	50	55		1	111	6.6	60-140	20	08/28/2014 1138
1,1-Dichloroethane	50	52		1	104	3.3	70-130	20	08/28/2014 1138
1,2-Dichloroethane	50	53		1	105	2.5	70-130	20	08/28/2014 1138
trans-1,2-Dichloroethene	50	52		1	105	4.1	70-130	20	08/28/2014 1138
cis-1,2-Dichloroethene	50	53		1	105	5.0	70-130	20	08/28/2014 1138
1,1-Dichloroethene	50	47		1	95	4.5	70-130	20	08/28/2014 1138
1,2-Dichloropropane	50	52		1	105	2.8	70-130	20	08/28/2014 1138
cis-1,3-Dichloropropene	50	50		1	100	0.41	70-130	20	08/28/2014 1138
trans-1,3-Dichloropropene	50	48		1	96	0.65	70-130	20	08/28/2014 1138
Ethylbenzene	50	55		1	111	1.8	70-130	20	08/28/2014 1138
2-Hexanone	100	110		1	106	1.4	60-140	20	08/28/2014 1138
Isopropylbenzene	50	54		1	108	1.4	70-130	20	08/28/2014 1138
Methyl acetate	50	32		1	63	17	60-140	20	08/28/2014 1138
Methyl tertiary butyl ether (MTBE)	50	49		1	98	9.1	70-130	20	08/28/2014 1138
4-Methyl-2-pentanone	100	100		1	103	4.5	60-140	20	08/28/2014 1138
Methylcyclohexane	50	53		1	107	5.4	70-130	20	08/28/2014 1138
Methylene chloride	50	47		1	94	4.2	70-130	20	08/28/2014 1138
Styrene	50	50		1	100	2.5	70-130	20	08/28/2014 1138
1,1,2,2-Tetrachloroethane	50	54		1	108	2.5	70-130	20	08/28/2014 1138
Tetrachloroethene	50	54		1	109	2.8	70-130	20	08/28/2014 1138
Toluene	50	55		1	110	0.78	70-130	20	08/28/2014 1138
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	6.6	70-130	20	08/28/2014 1138
1,2,4-Trichlorobenzene	50	47		1	94	2.8	70-130	20	08/28/2014 1138
1,1,1-Trichloroethane	50	53		1	105	4.4	70-130	20	08/28/2014 1138
1,1,2-Trichloroethane	50	55		1	109	0.91	70-130	20	08/28/2014 1138

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55019-003

Matrix: Aqueous

Batch: 55019

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	56		1	111	1.6	70-130	20	08/28/2014 1138
Trichlorofluoromethane	50	47		1	93	5.7	70-130	20	08/28/2014 1138
Vinyl chloride	50	53		1	105	4.5	70-130	20	08/28/2014 1138
Xylenes (total)	100	110		1	110	1.8	70-130	20	08/28/2014 1138
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		99	70-130						
1,2-Dichloroethane-d4		97	70-130						
Toluene-d8		105	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: MGM/08/27/14 Lot #: PH27059

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>157/5.0</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 5a Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> 18. Were bubbles present >"pca-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____.		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L. (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>MGM</u> Verified by: <u>MGM</u> Date: <u>8/27/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH28036 were collected on August 28, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

No QC excursions were encountered during the validation of this data set. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60328308.3**

Lot Number: **PH28036**

Date Completed: **09/03/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH28036 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH28036

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH28036

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3D	Aqueous	08/28/2014 0930	08/28/2014
002	MW-7D	Aqueous	08/28/2014 0945	08/28/2014
003	MW-6D	Aqueous	08/28/2014 1010	08/28/2014
004	MW-2D	Aqueous	08/28/2014 1030	08/28/2014
005	DUP-1	Aqueous	08/28/2014	08/28/2014
006	TMW-101-37	Aqueous	08/28/2014 1130	08/28/2014
007	TMW-103-16	Aqueous	08/28/2014 1510	08/28/2014
008	TB-082814	Aqueous	08/28/2014	08/28/2014

(8 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH28036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3D	Aqueous	cis-1,2-Dichloroethene	8260B	18		ug/L	5
001	MW-3D	Aqueous	Tetrachloroethene	8260B	1.0	J	ug/L	5
001	MW-3D	Aqueous	Trichloroethene	8260B	40		ug/L	6
002	MW-7D	Aqueous	cis-1,2-Dichloroethene	8260B	0.64	J	ug/L	7
002	MW-7D	Aqueous	Trichloroethene	8260B	45		ug/L	8
003	MW-6D	Aqueous	Trichloroethene	8260B	210		ug/L	10
004	MW-2D	Aqueous	Benzene	8260B	0.43	J	ug/L	11
004	MW-2D	Aqueous	Styrene	8260B	0.29	J	ug/L	11
005	DUP-1	Aqueous	cis-1,2-Dichloroethene	8260B	0.60	J	ug/L	13
005	DUP-1	Aqueous	Trichloroethene	8260B	39		ug/L	14
006	TMW-101-37	Aqueous	Benzene	8260B	0.41	J	ug/L	15
006	TMW-101-37	Aqueous	Toluene	8260B	2.6	J	ug/L	15
006	TMW-101-37	Aqueous	Trichloroethene	8260B	0.71	J	ug/L	16
007	TMW-103-16	Aqueous	Acetone	8260B	12	J	ug/L	17
007	TMW-103-16	Aqueous	Benzene	8260B	0.27	J	ug/L	17
007	TMW-103-16	Aqueous	2-Butanone (MEK)	8260B	2.3	J	ug/L	17
007	TMW-103-16	Aqueous	Styrene	8260B	0.25	J	ug/L	17

(17 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-001
Description: MW-3D	Matrix: Aqueous
Date Sampled: 08/28/2014 0930	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	09/02/2014 1318	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	2
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	18		5.0	0.20	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	1.0	J	5.0	0.40	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-001
Description: MW-3D	Matrix: Aqueous
Date Sampled: 08/28/2014 0930	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	09/02/2014 1318	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	40		5.0	0.30	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-002
Description: MW-7D	Matrix: Aqueous
Date Sampled: 08/28/2014 0945	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	09/02/2014 1342	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	2
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	0.64	J	5.0	0.20	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	2

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-002
Description: MW-7D	Matrix: Aqueous
Date Sampled: 08/28/2014 0945	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	09/02/2014 1342	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	45		5.0	0.30	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

 Client: **AECOM**

 Laboratory ID: **PH28036-003**

 Description: **MW-6D**

 Matrix: **Aqueous**

 Date Sampled: **08/28/2014 1010**

 Date Received: **08/28/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/29/2014 1759	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-003
Description: MW-6D	Matrix: Aqueous
Date Sampled: 08/28/2014 1010	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	08/29/2014 1759	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	210		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-004
Description: MW-2D	Matrix: Aqueous
Date Sampled: 08/28/2014 1030	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1546	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.43	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.29	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-004
Description: MW-2D	Matrix: Aqueous
Date Sampled: 08/28/2014 1030	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1546	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-005
Description: DUP-1	Matrix: Aqueous
Date Sampled: 08/28/2014	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1608	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.60	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-005
Description: DUP-1	Matrix: Aqueous
Date Sampled: 08/28/2014	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1608	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	39		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-006
Description: TMW-101-37	Matrix: Aqueous
Date Sampled: 08/28/2014 1130	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1630	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.41	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	2.6	J	5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-006
Description: TMW-101-37	Matrix: Aqueous
Date Sampled: 08/28/2014 1130	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1630	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	0.71	J	5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-007
Description: TMW-103-16	Matrix: Aqueous
Date Sampled: 08/28/2014 1510	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1652	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	12	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	0.27	J	5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	2.3	J	10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	0.25	J	5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-007
Description: TMW-103-16	Matrix: Aqueous
Date Sampled: 08/28/2014 1510	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/29/2014 1652	EH1		55079

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		107	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-008
Description: TB-082814	Matrix: Aqueous
Date Sampled: 08/28/2014	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1255	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH28036-008
Description: TB-082814	Matrix: Aqueous
Date Sampled: 08/28/2014	
Date Received: 08/28/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1255	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55079-001

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	08/29/2014 1055
Benzene	ND		1	5.0	0.20	ug/L	08/29/2014 1055
Bromodichloromethane	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Bromoform	ND		1	5.0	0.40	ug/L	08/29/2014 1055
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	08/29/2014 1055
2-Butanone (MEK)	ND		1	10	1.8	ug/L	08/29/2014 1055
Carbon disulfide	ND		1	5.0	0.30	ug/L	08/29/2014 1055
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	08/29/2014 1055
Chlorobenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Chloroethane	ND		1	5.0	0.50	ug/L	08/29/2014 1055
Chloroform	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	08/29/2014 1055
Cyclohexane	ND		1	5.0	0.98	ug/L	08/29/2014 1055
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	08/29/2014 1055
Dibromochloromethane	ND		1	5.0	1.7	ug/L	08/29/2014 1055
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	08/29/2014 1055
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	08/29/2014 1055
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/29/2014 1055
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	08/29/2014 1055
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	08/29/2014 1055
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	08/29/2014 1055
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	08/29/2014 1055
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	08/29/2014 1055
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/29/2014 1055
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	08/29/2014 1055
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
2-Hexanone	ND		1	10	1.0	ug/L	08/29/2014 1055
Isopropylbenzene	ND		1	5.0	1.0	ug/L	08/29/2014 1055
Methyl acetate	ND		1	5.0	0.72	ug/L	08/29/2014 1055
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/29/2014 1055
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	08/29/2014 1055
Methylcyclohexane	ND		1	5.0	0.95	ug/L	08/29/2014 1055
Methylene chloride	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Styrene	ND		1	5.0	0.10	ug/L	08/29/2014 1055
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	08/29/2014 1055
Tetrachloroethene	ND		1	5.0	0.40	ug/L	08/29/2014 1055
Toluene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	08/29/2014 1055
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	08/29/2014 1055
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	08/29/2014 1055
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	08/29/2014 1055

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55079-001

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	08/29/2014 1055
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	08/29/2014 1055
Vinyl chloride	ND		1	2.0	0.10	ug/L	08/29/2014 1055
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/29/2014 1055
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		101	70-130				
1,2-Dichloroethane-d4		94	70-130				
Toluene-d8		104	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55079-002

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	130	60-140	08/29/2014 0926
Benzene	50	49		1	98	70-130	08/29/2014 0926
Bromodichloromethane	50	45		1	90	70-130	08/29/2014 0926
Bromoform	50	41		1	82	70-130	08/29/2014 0926
Bromomethane (Methyl bromide)	50	52		1	104	60-140	08/29/2014 0926
2-Butanone (MEK)	100	100		1	103	60-140	08/29/2014 0926
Carbon disulfide	50	50		1	100	60-140	08/29/2014 0926
Carbon tetrachloride	50	44		1	88	70-130	08/29/2014 0926
Chlorobenzene	50	47		1	94	70-130	08/29/2014 0926
Chloroethane	50	56		1	111	42-163	08/29/2014 0926
Chloroform	50	47		1	94	70-130	08/29/2014 0926
Chloromethane (Methyl chloride)	50	58		1	116	60-140	08/29/2014 0926
Cyclohexane	50	49		1	97	70-130	08/29/2014 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	40		1	81	70-130	08/29/2014 0926
Dibromochloromethane	50	44		1	87	70-130	08/29/2014 0926
1,2-Dibromoethane (EDB)	50	46		1	92	70-130	08/29/2014 0926
1,4-Dichlorobenzene	50	48		1	95	70-130	08/29/2014 0926
1,2-Dichlorobenzene	50	50		1	101	70-130	08/29/2014 0926
1,3-Dichlorobenzene	50	50		1	101	70-130	08/29/2014 0926
Dichlorodifluoromethane	50	49		1	97	60-140	08/29/2014 0926
1,2-Dichloroethane	50	44		1	89	70-130	08/29/2014 0926
1,1-Dichloroethane	50	49		1	97	70-130	08/29/2014 0926
trans-1,2-Dichloroethene	50	49		1	97	70-130	08/29/2014 0926
1,1-Dichloroethene	50	50		1	99	70-130	08/29/2014 0926
cis-1,2-Dichloroethene	50	50		1	99	70-130	08/29/2014 0926
1,2-Dichloropropane	50	47		1	94	70-130	08/29/2014 0926
trans-1,3-Dichloropropene	50	47		1	94	70-130	08/29/2014 0926
cis-1,3-Dichloropropene	50	50		1	100	70-130	08/29/2014 0926
Ethylbenzene	50	51		1	103	70-130	08/29/2014 0926
2-Hexanone	100	94		1	94	60-140	08/29/2014 0926
Isopropylbenzene	50	55		1	110	70-130	08/29/2014 0926
Methyl acetate	50	34		1	68	60-140	08/29/2014 0926
Methyl tertiary butyl ether (MTBE)	50	53		1	107	70-130	08/29/2014 0926
4-Methyl-2-pentanone	100	90		1	90	60-140	08/29/2014 0926
Methylcyclohexane	50	56		1	112	70-130	08/29/2014 0926
Methylene chloride	50	55		1	111	70-130	08/29/2014 0926
Styrene	50	48		1	97	70-130	08/29/2014 0926
1,1,2,2-Tetrachloroethane	50	47		1	95	70-130	08/29/2014 0926
Tetrachloroethene	50	47		1	94	70-130	08/29/2014 0926
Toluene	50	49		1	99	70-130	08/29/2014 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	111	70-130	08/29/2014 0926
1,2,4-Trichlorobenzene	50	53		1	107	70-130	08/29/2014 0926
1,1,1-Trichloroethane	50	47		1	93	70-130	08/29/2014 0926
1,1,2-Trichloroethane	50	44		1	89	70-130	08/29/2014 0926

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55079-002

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	95	70-130	08/29/2014 0926
Trichlorofluoromethane	50	48		1	97	70-130	08/29/2014 0926
Vinyl chloride	50	56		1	113	70-130	08/29/2014 0926
Xylenes (total)	100	110		1	107	70-130	08/29/2014 0926
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		103	70-130				
1,2-Dichloroethane-d4		92	70-130				
Toluene-d8		110	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55079-003

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	119	8.5	60-140	20	08/29/2014 0948
Benzene	50	48		1	95	3.1	70-130	20	08/29/2014 0948
Bromodichloromethane	50	44		1	89	1.3	70-130	20	08/29/2014 0948
Bromoform	50	42		1	84	3.3	70-130	20	08/29/2014 0948
Bromomethane (Methyl bromide)	50	50		1	99	4.8	60-140	20	08/29/2014 0948
2-Butanone (MEK)	100	100		1	101	1.7	60-140	20	08/29/2014 0948
Carbon disulfide	50	47		1	93	7.5	60-140	20	08/29/2014 0948
Carbon tetrachloride	50	42		1	84	3.9	70-130	20	08/29/2014 0948
Chlorobenzene	50	47		1	94	1.0	70-130	20	08/29/2014 0948
Chloroethane	50	51		1	103	7.9	42-163	20	08/29/2014 0948
Chloroform	50	45		1	90	4.9	70-130	20	08/29/2014 0948
Chloromethane (Methyl chloride)	50	54		1	108	7.7	60-140	20	08/29/2014 0948
Cyclohexane	50	46		1	93	4.9	70-130	20	08/29/2014 0948
1,2-Dibromo-3-chloropropane (DBCP)	50	39		1	79	2.2	70-130	20	08/29/2014 0948
Dibromochloromethane	50	43		1	87	0.48	70-130	20	08/29/2014 0948
1,2-Dibromoethane (EDB)	50	47		1	94	2.9	70-130	20	08/29/2014 0948
1,4-Dichlorobenzene	50	48		1	95	0.21	70-130	20	08/29/2014 0948
1,2-Dichlorobenzene	50	49		1	97	3.5	70-130	20	08/29/2014 0948
1,3-Dichlorobenzene	50	50		1	100	0.26	70-130	20	08/29/2014 0948
Dichlorodifluoromethane	50	46		1	92	5.6	60-140	20	08/29/2014 0948
1,2-Dichloroethane	50	44		1	87	1.7	70-130	20	08/29/2014 0948
1,1-Dichloroethane	50	47		1	93	4.5	70-130	20	08/29/2014 0948
trans-1,2-Dichloroethene	50	47		1	94	3.2	70-130	20	08/29/2014 0948
1,1-Dichloroethene	50	46		1	92	7.2	70-130	20	08/29/2014 0948
cis-1,2-Dichloroethene	50	48		1	95	4.4	70-130	20	08/29/2014 0948
1,2-Dichloropropane	50	47		1	94	0.16	70-130	20	08/29/2014 0948
trans-1,3-Dichloropropene	50	50		1	100	5.8	70-130	20	08/29/2014 0948
cis-1,3-Dichloropropene	50	52		1	104	4.1	70-130	20	08/29/2014 0948
Ethylbenzene	50	51		1	103	0.24	70-130	20	08/29/2014 0948
2-Hexanone	100	96		1	96	2.7	60-140	20	08/29/2014 0948
Isopropylbenzene	50	52		1	104	5.7	70-130	20	08/29/2014 0948
Methyl acetate	50	34		1	67	1.1	60-140	20	08/29/2014 0948
Methyl tertiary butyl ether (MTBE)	50	51		1	102	4.8	70-130	20	08/29/2014 0948
4-Methyl-2-pentanone	100	94		1	94	3.9	60-140	20	08/29/2014 0948
Methylcyclohexane	50	53		1	106	5.6	70-130	20	08/29/2014 0948
Methylene chloride	50	52		1	105	5.7	70-130	20	08/29/2014 0948
Styrene	50	50		1	99	2.5	70-130	20	08/29/2014 0948
1,1,2,2-Tetrachloroethane	50	46		1	91	3.8	70-130	20	08/29/2014 0948
Tetrachloroethene	50	47		1	94	0.10	70-130	20	08/29/2014 0948
Toluene	50	51		1	102	3.4	70-130	20	08/29/2014 0948
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	105	5.6	70-130	20	08/29/2014 0948
1,2,4-Trichlorobenzene	50	51		1	102	4.6	70-130	20	08/29/2014 0948
1,1,1-Trichloroethane	50	45		1	91	2.9	70-130	20	08/29/2014 0948
1,1,2-Trichloroethane	50	46		1	92	3.4	70-130	20	08/29/2014 0948

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55079-003

Matrix: Aqueous

Batch: 55079

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	94	0.55	70-130	20	08/29/2014 0948
Trichlorofluoromethane	50	45		1	90	6.9	70-130	20	08/29/2014 0948
Vinyl chloride	50	52		1	104	8.7	70-130	20	08/29/2014 0948
Xylenes (total)	100	110		1	105	1.6	70-130	20	08/29/2014 0948
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		105	70-130						
1,2-Dichloroethane-d4		90	70-130						
Toluene-d8		113	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55181-001

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	09/02/2014 1057
Benzene	ND		1	5.0	0.20	ug/L	09/02/2014 1057
Bromodichloromethane	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Bromoform	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	09/02/2014 1057
2-Butanone (MEK)	ND		1	10	1.8	ug/L	09/02/2014 1057
Carbon disulfide	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Chlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Chloroethane	ND		1	5.0	0.50	ug/L	09/02/2014 1057
Chloroform	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Cyclohexane	ND		1	5.0	0.98	ug/L	09/02/2014 1057
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	09/02/2014 1057
Dibromochloromethane	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	09/02/2014 1057
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	09/02/2014 1057
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Ethylbenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
2-Hexanone	ND		1	10	1.0	ug/L	09/02/2014 1057
Isopropylbenzene	ND		1	5.0	1.0	ug/L	09/02/2014 1057
Methyl acetate	ND		1	5.0	0.72	ug/L	09/02/2014 1057
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	09/02/2014 1057
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	09/02/2014 1057
Methylcyclohexane	ND		1	5.0	0.95	ug/L	09/02/2014 1057
Methylene chloride	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Styrene	ND		1	5.0	0.10	ug/L	09/02/2014 1057
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Tetrachloroethene	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Toluene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55181-001

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Vinyl chloride	ND		1	2.0	0.10	ug/L	09/02/2014 1057
Xylenes (total)	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55181-002

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	09/02/2014 0926
Benzene	50	52		1	105	70-130	09/02/2014 0926
Bromodichloromethane	50	54		1	109	70-130	09/02/2014 0926
Bromoform	50	50		1	100	70-130	09/02/2014 0926
Bromomethane (Methyl bromide)	50	45		1	90	60-140	09/02/2014 0926
2-Butanone (MEK)	100	89		1	89	60-140	09/02/2014 0926
Carbon disulfide	50	52		1	103	60-140	09/02/2014 0926
Carbon tetrachloride	50	49		1	98	70-130	09/02/2014 0926
Chlorobenzene	50	53		1	106	70-130	09/02/2014 0926
Chloroethane	50	50		1	99	42-163	09/02/2014 0926
Chloroform	50	53		1	105	70-130	09/02/2014 0926
Chloromethane (Methyl chloride)	50	55		1	110	60-140	09/02/2014 0926
Cyclohexane	50	49		1	98	70-130	09/02/2014 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	09/02/2014 0926
Dibromochloromethane	50	49		1	99	70-130	09/02/2014 0926
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	09/02/2014 0926
1,4-Dichlorobenzene	50	54		1	108	70-130	09/02/2014 0926
1,3-Dichlorobenzene	50	54		1	109	70-130	09/02/2014 0926
1,2-Dichlorobenzene	50	53		1	106	70-130	09/02/2014 0926
Dichlorodifluoromethane	50	57		1	113	60-140	09/02/2014 0926
1,1-Dichloroethane	50	52		1	103	70-130	09/02/2014 0926
1,2-Dichloroethane	50	51		1	103	70-130	09/02/2014 0926
cis-1,2-Dichloroethene	50	52		1	104	70-130	09/02/2014 0926
1,1-Dichloroethene	50	48		1	96	70-130	09/02/2014 0926
trans-1,2-Dichloroethene	50	53		1	105	70-130	09/02/2014 0926
1,2-Dichloropropane	50	52		1	103	70-130	09/02/2014 0926
trans-1,3-Dichloropropene	50	48		1	97	70-130	09/02/2014 0926
cis-1,3-Dichloropropene	50	48		1	97	70-130	09/02/2014 0926
Ethylbenzene	50	54		1	108	70-130	09/02/2014 0926
2-Hexanone	100	100		1	102	60-140	09/02/2014 0926
Isopropylbenzene	50	55		1	111	70-130	09/02/2014 0926
Methyl acetate	50	32		1	65	60-140	09/02/2014 0926
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	09/02/2014 0926
4-Methyl-2-pentanone	100	97		1	97	60-140	09/02/2014 0926
Methylcyclohexane	50	56		1	112	70-130	09/02/2014 0926
Methylene chloride	50	47		1	93	70-130	09/02/2014 0926
Styrene	50	49		1	99	70-130	09/02/2014 0926
1,1,2,2-Tetrachloroethane	50	54		1	109	70-130	09/02/2014 0926
Tetrachloroethene	50	56		1	112	70-130	09/02/2014 0926
Toluene	50	53		1	106	70-130	09/02/2014 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	09/02/2014 0926
1,2,4-Trichlorobenzene	50	46		1	93	70-130	09/02/2014 0926
1,1,1-Trichloroethane	50	53		1	107	70-130	09/02/2014 0926
1,1,2-Trichloroethane	50	54		1	108	70-130	09/02/2014 0926

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55181-002

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	54		1	107	70-130	09/02/2014 0926
Trichlorofluoromethane	50	50		1	99	70-130	09/02/2014 0926
Vinyl chloride	50	53		1	106	70-130	09/02/2014 0926
Xylenes (total)	100	110		1	109	70-130	09/02/2014 0926
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	70-130				
1,2-Dichloroethane-d4		96	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55181-003

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	140		1	139	16	60-140	20	09/02/2014 0948
Benzene	50	53		1	106	1.3	70-130	20	09/02/2014 0948
Bromodichloromethane	50	55		1	110	0.93	70-130	20	09/02/2014 0948
Bromoform	50	52		1	104	4.3	70-130	20	09/02/2014 0948
Bromomethane (Methyl bromide)	50	47		1	94	4.2	60-140	20	09/02/2014 0948
2-Butanone (MEK)	100	110		1	108	19	60-140	20	09/02/2014 0948
Carbon disulfide	50	50		1	99	3.9	60-140	20	09/02/2014 0948
Carbon tetrachloride	50	48		1	96	1.9	70-130	20	09/02/2014 0948
Chlorobenzene	50	53		1	106	0.59	70-130	20	09/02/2014 0948
Chloroethane	50	51		1	102	2.6	42-163	20	09/02/2014 0948
Chloroform	50	53		1	106	0.63	70-130	20	09/02/2014 0948
Chloromethane (Methyl chloride)	50	52		1	104	5.9	60-140	20	09/02/2014 0948
Cyclohexane	50	45		1	91	7.3	70-130	20	09/02/2014 0948
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	10	70-130	20	09/02/2014 0948
Dibromochloromethane	50	50		1	101	2.1	70-130	20	09/02/2014 0948
1,2-Dibromoethane (EDB)	50	55		1	111	2.0	70-130	20	09/02/2014 0948
1,4-Dichlorobenzene	50	53		1	107	0.90	70-130	20	09/02/2014 0948
1,3-Dichlorobenzene	50	53		1	107	2.0	70-130	20	09/02/2014 0948
1,2-Dichlorobenzene	50	54		1	108	2.0	70-130	20	09/02/2014 0948
Dichlorodifluoromethane	50	54		1	108	4.3	60-140	20	09/02/2014 0948
1,1-Dichloroethane	50	52		1	104	0.26	70-130	20	09/02/2014 0948
1,2-Dichloroethane	50	53		1	106	3.4	70-130	20	09/02/2014 0948
cis-1,2-Dichloroethene	50	52		1	105	0.76	70-130	20	09/02/2014 0948
1,1-Dichloroethene	50	47		1	94	2.5	70-130	20	09/02/2014 0948
trans-1,2-Dichloroethene	50	51		1	103	2.1	70-130	20	09/02/2014 0948
1,2-Dichloropropane	50	52		1	104	0.76	70-130	20	09/02/2014 0948
trans-1,3-Dichloropropene	50	49		1	97	0.39	70-130	20	09/02/2014 0948
cis-1,3-Dichloropropene	50	49		1	99	2.0	70-130	20	09/02/2014 0948
Ethylbenzene	50	54		1	108	0.043	70-130	20	09/02/2014 0948
2-Hexanone	100	110		1	109	6.7	60-140	20	09/02/2014 0948
Isopropylbenzene	50	53		1	106	4.6	70-130	20	09/02/2014 0948
Methyl acetate	50	39		1	79	19	60-140	20	09/02/2014 0948
Methyl tertiary butyl ether (MTBE)	50	53		1	106	5.9	70-130	20	09/02/2014 0948
4-Methyl-2-pentanone	100	110		1	110	12	60-140	20	09/02/2014 0948
Methylcyclohexane	50	53		1	107	4.3	70-130	20	09/02/2014 0948
Methylene chloride	50	47		1	94	0.36	70-130	20	09/02/2014 0948
Styrene	50	50		1	100	0.93	70-130	20	09/02/2014 0948
1,1,2,2-Tetrachloroethane	50	56		1	111	1.9	70-130	20	09/02/2014 0948
Tetrachloroethene	50	54		1	109	2.9	70-130	20	09/02/2014 0948
Toluene	50	53		1	106	0.36	70-130	20	09/02/2014 0948
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	103	3.0	70-130	20	09/02/2014 0948
1,2,4-Trichlorobenzene	50	48		1	96	3.6	70-130	20	09/02/2014 0948
1,1,1-Trichloroethane	50	51		1	102	4.3	70-130	20	09/02/2014 0948
1,1,2-Trichloroethane	50	55		1	110	2.0	70-130	20	09/02/2014 0948

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

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J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55181-003

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	54		1	108	0.23	70-130	20	09/02/2014 0948
Trichlorofluoromethane	50	45		1	91	8.8	70-130	20	09/02/2014 0948
Vinyl chloride	50	52		1	104	1.8	70-130	20	09/02/2014 0948
Xylenes (total)	100	110		1	109	0.48	70-130	20	09/02/2014 0948
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		100	70-130						
1,2-Dichloroethane-d4		99	70-130						
Toluene-d8		102	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY ENVIRONMENTAL SERVICES, INC.
 106 Vantage Point Drive • West Columbia, SC 29172
 Telephone No. 803-791-9700 Fax No. 803-791-9111
 www.shealylab.com

Number **42551**

Chain of Custody Record



Client Aecom	Report to Contact Scott Ross	Telephone No. / E-mail Scott.Ross@Aecom.com	Quote No. _____
Address 3820 FABER PARK DR STE 300 City SC State SC Zip Code 29405	Sampler's Signature 	Analysis (Although not all more space is needed)	Page 1 of 1
Project Name SHAKE SPILLAGE - NEW BRIDGE	Printed Name James Grayson	Barcode 	Remarks / Cooler I.D. PH28036
Project No. 60328308.3	Matrix (Contains for each sample may be combined on one line.)	No. of Containers by Preservative Type	GC Requirements (Specify)
Sample ID / Description (Contains for each sample may be combined on one line.)	Date Time	Matrix (Contains for each sample may be combined on one line.)	Possible Hazard Identification L: Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown <input type="checkbox"/>
MW-3D	8/28/14 0930	MW-3D	3
MW-7D	0915	MW-7D	3
MW-6D	1010	MW-6D	3
MW-2D	1030	MW-2D	3
DIP-1	—	DIP-1	3
TMW-101-37	1130	TMW-101-37	3
TMW-103-16	1510	TMW-103-16	3
TB-082814	—	TB-082814	2

Turn Around Time Required (Prior lab approval required for expedited TAT.) <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Specify)	Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Dispose by Lab	Possible Hazard Identification L: Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown <input type="checkbox"/>
1. Relinquished by 	Date Time 8/28/14 1610	1. Received by Date Time
2. Relinquished by	Date Time	2. Received by Date Time
3. Relinquished by	Date Time	3. Received by Date Time
4. Relinquished by	Date Time	4. Laboratory received by Date Time 8/28/14 1610

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on ice (Check) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ice Pack	Receipt Temp. 42 °C
---	----------------------------

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: PECOM Cooler Inspected by/date: EA 8/28/14 Lot #: PH 28036

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>1411420C</u> / <u> </u> °C / <u> </u> / <u> </u> °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: #3 IR Gun Correction Factor: <u>+0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: <u> </u> (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present > "pea-size" (1/4" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) <u> </u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u> </u> (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # <u> </u> .		
Sample(s) <u> </u> were received with bubbles >6 mm in diameter.		
Sample(s) <u> </u> were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by <u> </u> Date: <u> </u>		
Sample(s) <u> </u> were not received at a pH of <2 and were adjusted accordingly using SR# <u> </u>		
Sample labels applied by: <u> </u> Verified by: <u> </u> Date: <u>8/28/14</u>		

Comments:

DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and identification (ID), cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data associated with analytical data package PH29019 were collected on August 29, 2014 for Shakespeare Composite Structures located in Newberry, South Carolina. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash "/" and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

All results in this data package were qualified “//y” due to the samples being received above the required temperature of ≤ 6 °C (16.6 °C). Most of the samples (and the last samples collected) in this cooler were collected from a surface water feature on a very hot day, and the samples were delivered to the lab a few hours later. It is the validator’s opinion that the samples had inadequate time to cool prior to reaching the laboratory.

Data Summary and Usability

The QC excursions encountered during the validation of this data set did not result in the rejection of any data. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.

Report of Analysis

AECOM

3820 Faber Place Drive
Suite 300
Charleston, SC 29405
Attention: Scott Ross

Project Name: **Shakespeare - Newberry**

Project Number: **60318382.Task5**

Lot Number: **PH29019**

Date Completed: **09/03/2014**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* PH29019 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative

AECOM

Lot Number: PH29019

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary

AECOM

Lot Number: PH29019

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	SW-1	Aqueous	08/29/2014 1030	08/29/2014
002	SW-2	Aqueous	08/29/2014 1045	08/29/2014
003	SW-3	Aqueous	08/29/2014 1105	08/29/2014
004	TMW-104-10'	Aqueous	08/29/2014 0940	08/29/2014
005	TMW-105-12'	Aqueous	08/29/2014 1025	08/29/2014
006	TB082914	Aqueous	08/29/2014	08/29/2014

(6 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

AECOM

Lot Number: PH29019

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	SW-1	Aqueous	cis-1,2-Dichloroethene	8260B	0.51	J	ug/L	5
003	SW-3	Aqueous	Acetone	8260B	11	J	ug/L	9

(2 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-001
Description: SW-1	Matrix: Aqueous
Date Sampled: 08/29/2014 1030	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1630	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.51	J	5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-001
Description: SW-1	Matrix: Aqueous
Date Sampled: 08/29/2014 1030	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1630	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-002
Description: SW-2	Matrix: Aqueous
Date Sampled: 08/29/2014 1045	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1654	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-002
Description: SW-2	Matrix: Aqueous
Date Sampled: 08/29/2014 1045	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1654	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-003
Description: SW-3	Matrix: Aqueous
Date Sampled: 08/29/2014 1105	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1719	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	11	J	20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-003
Description: SW-3	Matrix: Aqueous
Date Sampled: 08/29/2014 1105	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1719	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-004
Description: TMW-104-10'	Matrix: Aqueous
Date Sampled: 08/29/2014 0940	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	09/02/2014 1743	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-004
Description: TMW-104-10'	Matrix: Aqueous
Date Sampled: 08/29/2014 0940	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	09/02/2014 1743	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-005
Description: TMW-105-12'	Matrix: Aqueous
Date Sampled: 08/29/2014 1025	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	09/02/2014 1808	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		100	34	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	8.5	ug/L	1
Bromoform	75-25-2	8260B	ND		25	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	9.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	1.5	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	8.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	2.5	ug/L	1
Chloroform	67-66-3	8260B	ND		25	8.5	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	1.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	4.9	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	3.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	8.5	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	1.5	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	8.5	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	8.5	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	8.5	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	1.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	1.5	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	1.5	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	1.5	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	5.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	3.6	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	4.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	4.8	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	8.5	ug/L	1
Styrene	100-42-5	8260B	ND		25	0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	1.5	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	8.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	1.5	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-005
Description: TMW-105-12'	Matrix: Aqueous
Date Sampled: 08/29/2014 1025	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	09/02/2014 1808	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		25	1.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	1.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-006
Description: TB082914	Matrix: Aqueous
Date Sampled: 08/29/2014	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1231	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	1.7	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	1.8	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	0.30	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	1.7	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	1.7	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	0.30	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	0.98	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	0.60	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	1.7	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	1.7	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	1.7	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	1.7	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	0.30	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	0.20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	0.30	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	0.30	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	1.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	0.72	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.80	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.95	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	1.7	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	0.10	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	0.30	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	1.7	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	0.20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	0.30	ug/L	1

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: AECOM	Laboratory ID: PH29019-006
Description: TB082914	Matrix: Aqueous
Date Sampled: 08/29/2014	
Date Received: 08/29/2014	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/02/2014 1231	EH1		55181

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Trichloroethene	79-01-6	8260B	ND		5.0	0.30	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	0.30	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	0.10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55181-001

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	09/02/2014 1057
Benzene	ND		1	5.0	0.20	ug/L	09/02/2014 1057
Bromodichloromethane	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Bromoform	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Bromomethane (Methyl bromide)	ND		1	5.0	0.80	ug/L	09/02/2014 1057
2-Butanone (MEK)	ND		1	10	1.8	ug/L	09/02/2014 1057
Carbon disulfide	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Carbon tetrachloride	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Chlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Chloroethane	ND		1	5.0	0.50	ug/L	09/02/2014 1057
Chloroform	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Chloromethane (Methyl chloride)	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Cyclohexane	ND		1	5.0	0.98	ug/L	09/02/2014 1057
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	0.60	ug/L	09/02/2014 1057
Dibromochloromethane	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,2-Dibromoethane (EDB)	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,4-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,3-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,2-Dichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Dichlorodifluoromethane	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1-Dichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
cis-1,2-Dichloroethene	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1-Dichloroethene	ND		1	5.0	0.50	ug/L	09/02/2014 1057
trans-1,2-Dichloroethene	ND		1	5.0	0.40	ug/L	09/02/2014 1057
1,2-Dichloropropane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
trans-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
cis-1,3-Dichloropropene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Ethylbenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
2-Hexanone	ND		1	10	1.0	ug/L	09/02/2014 1057
Isopropylbenzene	ND		1	5.0	1.0	ug/L	09/02/2014 1057
Methyl acetate	ND		1	5.0	0.72	ug/L	09/02/2014 1057
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	09/02/2014 1057
4-Methyl-2-pentanone	ND		1	10	0.80	ug/L	09/02/2014 1057
Methylcyclohexane	ND		1	5.0	0.95	ug/L	09/02/2014 1057
Methylene chloride	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Styrene	ND		1	5.0	0.10	ug/L	09/02/2014 1057
1,1,2,2-Tetrachloroethane	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Tetrachloroethene	ND		1	5.0	0.40	ug/L	09/02/2014 1057
Toluene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
1,2,4-Trichlorobenzene	ND		1	5.0	1.7	ug/L	09/02/2014 1057
1,1,1-Trichloroethane	ND		1	5.0	0.20	ug/L	09/02/2014 1057
1,1,2-Trichloroethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ55181-001

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Trichloroethene	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Trichlorofluoromethane	ND		1	5.0	0.30	ug/L	09/02/2014 1057
Vinyl chloride	ND		1	2.0	0.10	ug/L	09/02/2014 1057
Xylenes (total)	ND		1	5.0	1.7	ug/L	09/02/2014 1057
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		99	70-130				
1,2-Dichloroethane-d4		100	70-130				
Toluene-d8		101	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55181-002

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	09/02/2014 0926
Benzene	50	52		1	105	70-130	09/02/2014 0926
Bromodichloromethane	50	54		1	109	70-130	09/02/2014 0926
Bromoform	50	50		1	100	70-130	09/02/2014 0926
Bromomethane (Methyl bromide)	50	45		1	90	60-140	09/02/2014 0926
2-Butanone (MEK)	100	89		1	89	60-140	09/02/2014 0926
Carbon disulfide	50	52		1	103	60-140	09/02/2014 0926
Carbon tetrachloride	50	49		1	98	70-130	09/02/2014 0926
Chlorobenzene	50	53		1	106	70-130	09/02/2014 0926
Chloroethane	50	50		1	99	42-163	09/02/2014 0926
Chloroform	50	53		1	105	70-130	09/02/2014 0926
Chloromethane (Methyl chloride)	50	55		1	110	60-140	09/02/2014 0926
Cyclohexane	50	49		1	98	70-130	09/02/2014 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	09/02/2014 0926
Dibromochloromethane	50	49		1	99	70-130	09/02/2014 0926
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	09/02/2014 0926
1,4-Dichlorobenzene	50	54		1	108	70-130	09/02/2014 0926
1,3-Dichlorobenzene	50	54		1	109	70-130	09/02/2014 0926
1,2-Dichlorobenzene	50	53		1	106	70-130	09/02/2014 0926
Dichlorodifluoromethane	50	57		1	113	60-140	09/02/2014 0926
1,1-Dichloroethane	50	52		1	103	70-130	09/02/2014 0926
1,2-Dichloroethane	50	51		1	103	70-130	09/02/2014 0926
cis-1,2-Dichloroethene	50	52		1	104	70-130	09/02/2014 0926
1,1-Dichloroethene	50	48		1	96	70-130	09/02/2014 0926
trans-1,2-Dichloroethene	50	53		1	105	70-130	09/02/2014 0926
1,2-Dichloropropane	50	52		1	103	70-130	09/02/2014 0926
trans-1,3-Dichloropropene	50	48		1	97	70-130	09/02/2014 0926
cis-1,3-Dichloropropene	50	48		1	97	70-130	09/02/2014 0926
Ethylbenzene	50	54		1	108	70-130	09/02/2014 0926
2-Hexanone	100	100		1	102	60-140	09/02/2014 0926
Isopropylbenzene	50	55		1	111	70-130	09/02/2014 0926
Methyl acetate	50	32		1	65	60-140	09/02/2014 0926
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	09/02/2014 0926
4-Methyl-2-pentanone	100	97		1	97	60-140	09/02/2014 0926
Methylcyclohexane	50	56		1	112	70-130	09/02/2014 0926
Methylene chloride	50	47		1	93	70-130	09/02/2014 0926
Styrene	50	49		1	99	70-130	09/02/2014 0926
1,1,2,2-Tetrachloroethane	50	54		1	109	70-130	09/02/2014 0926
Tetrachloroethene	50	56		1	112	70-130	09/02/2014 0926
Toluene	50	53		1	106	70-130	09/02/2014 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	09/02/2014 0926
1,2,4-Trichlorobenzene	50	46		1	93	70-130	09/02/2014 0926
1,1,1-Trichloroethane	50	53		1	107	70-130	09/02/2014 0926
1,1,2-Trichloroethane	50	54		1	108	70-130	09/02/2014 0926

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ55181-002

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	54		1	107	70-130	09/02/2014 0926
Trichlorofluoromethane	50	50		1	99	70-130	09/02/2014 0926
Vinyl chloride	50	53		1	106	70-130	09/02/2014 0926
Xylenes (total)	100	110		1	109	70-130	09/02/2014 0926
Surrogate	Q	% Rec	Acceptance Limit				
Bromofluorobenzene		98	70-130				
1,2-Dichloroethane-d4		96	70-130				
Toluene-d8		100	70-130				

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55181-003

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	140		1	139	16	60-140	20	09/02/2014 0948
Benzene	50	53		1	106	1.3	70-130	20	09/02/2014 0948
Bromodichloromethane	50	55		1	110	0.93	70-130	20	09/02/2014 0948
Bromoform	50	52		1	104	4.3	70-130	20	09/02/2014 0948
Bromomethane (Methyl bromide)	50	47		1	94	4.2	60-140	20	09/02/2014 0948
2-Butanone (MEK)	100	110		1	108	19	60-140	20	09/02/2014 0948
Carbon disulfide	50	50		1	99	3.9	60-140	20	09/02/2014 0948
Carbon tetrachloride	50	48		1	96	1.9	70-130	20	09/02/2014 0948
Chlorobenzene	50	53		1	106	0.59	70-130	20	09/02/2014 0948
Chloroethane	50	51		1	102	2.6	42-163	20	09/02/2014 0948
Chloroform	50	53		1	106	0.63	70-130	20	09/02/2014 0948
Chloromethane (Methyl chloride)	50	52		1	104	5.9	60-140	20	09/02/2014 0948
Cyclohexane	50	45		1	91	7.3	70-130	20	09/02/2014 0948
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	10	70-130	20	09/02/2014 0948
Dibromochloromethane	50	50		1	101	2.1	70-130	20	09/02/2014 0948
1,2-Dibromoethane (EDB)	50	55		1	111	2.0	70-130	20	09/02/2014 0948
1,4-Dichlorobenzene	50	53		1	107	0.90	70-130	20	09/02/2014 0948
1,3-Dichlorobenzene	50	53		1	107	2.0	70-130	20	09/02/2014 0948
1,2-Dichlorobenzene	50	54		1	108	2.0	70-130	20	09/02/2014 0948
Dichlorodifluoromethane	50	54		1	108	4.3	60-140	20	09/02/2014 0948
1,1-Dichloroethane	50	52		1	104	0.26	70-130	20	09/02/2014 0948
1,2-Dichloroethane	50	53		1	106	3.4	70-130	20	09/02/2014 0948
cis-1,2-Dichloroethene	50	52		1	105	0.76	70-130	20	09/02/2014 0948
1,1-Dichloroethene	50	47		1	94	2.5	70-130	20	09/02/2014 0948
trans-1,2-Dichloroethene	50	51		1	103	2.1	70-130	20	09/02/2014 0948
1,2-Dichloropropane	50	52		1	104	0.76	70-130	20	09/02/2014 0948
trans-1,3-Dichloropropene	50	49		1	97	0.39	70-130	20	09/02/2014 0948
cis-1,3-Dichloropropene	50	49		1	99	2.0	70-130	20	09/02/2014 0948
Ethylbenzene	50	54		1	108	0.043	70-130	20	09/02/2014 0948
2-Hexanone	100	110		1	109	6.7	60-140	20	09/02/2014 0948
Isopropylbenzene	50	53		1	106	4.6	70-130	20	09/02/2014 0948
Methyl acetate	50	39		1	79	19	60-140	20	09/02/2014 0948
Methyl tertiary butyl ether (MTBE)	50	53		1	106	5.9	70-130	20	09/02/2014 0948
4-Methyl-2-pentanone	100	110		1	110	12	60-140	20	09/02/2014 0948
Methylcyclohexane	50	53		1	107	4.3	70-130	20	09/02/2014 0948
Methylene chloride	50	47		1	94	0.36	70-130	20	09/02/2014 0948
Styrene	50	50		1	100	0.93	70-130	20	09/02/2014 0948
1,1,2,2-Tetrachloroethane	50	56		1	111	1.9	70-130	20	09/02/2014 0948
Tetrachloroethene	50	54		1	109	2.9	70-130	20	09/02/2014 0948
Toluene	50	53		1	106	0.36	70-130	20	09/02/2014 0948
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	103	3.0	70-130	20	09/02/2014 0948
1,2,4-Trichlorobenzene	50	48		1	96	3.6	70-130	20	09/02/2014 0948
1,1,1-Trichloroethane	50	51		1	102	4.3	70-130	20	09/02/2014 0948
1,1,2-Trichloroethane	50	55		1	110	2.0	70-130	20	09/02/2014 0948

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ55181-003

Matrix: Aqueous

Batch: 55181

Prep Method: 5030B

Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	54		1	108	0.23	70-130	20	09/02/2014 0948
Trichlorofluoromethane	50	45		1	91	8.8	70-130	20	09/02/2014 0948
Vinyl chloride	50	52		1	104	1.8	70-130	20	09/02/2014 0948
Xylenes (total)	100	110		1	109	0.48	70-130	20	09/02/2014 0948
Surrogate	Q	% Rec	Acceptance Limit						
Bromofluorobenzene		100	70-130						
1,2-Dichloroethane-d4		99	70-130						
Toluene-d8		102	70-130						

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results



Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
 106 Vantage Point Drive • West Columbia, SC 29172
 Telephone No. 803-791-9700 Fax No. 803-791-9111
 www.shealylab.com

Number 40425

Client AFCOM	Report to Contact Scott Ross	Telephone No. / E-mail (803) 201-9662	Quots No. 1 of 1
Address 5820 Faber Place Sta. 300	Sampler's Signature 	Analysis (Attach list if more spaces is needed)	
City Charleston, SC	Printed Name Justin Butler	PH29019	
State SC	Zip Code 29405		
Project Name Shakespeare - Newberry	Project No.	Remarks / Cooler I.D. 24-48 hr. Inverwood	
Sample ID / Description <small>(Containers for each sample may be examined on one line.)</small>	Date		
SW-1	8/29/14	1030	G
SW-2	"	1045	"
SW-3	"	1105	"
TMU-104-10'	"	0940	"
TMU-105-12'	"	1025	"
TS-104			
TB082914			

Sample Disposal	Sample Disposal		Sample Disposal		Sample Disposal	
	Return to Client	Disposal by Lab	Disposal by Lab	Disposal by Lab	Disposal by Lab	Disposal by Lab
1. Requisitioned by	Date	Time	1. Received by	Date	Time	OC Requirements (Specify)
2. Requisitioned by	Date	Time	2. Received by	Date	Time	
3. Requisitioned by	Date	Time	3. Received by	Date	Time	
4. Requisitioned by	Date	Time	4. Laboratory received by	Date	Time	

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
 Document Number: F-AD-016
 Revision Number: 15

Page 1 of 1
 Replaces Date: 03/07/14
 Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

PH29019 mam
 PH2019 8/29/14

Client: AECOM

Cooler Inspected by/date: mam/8/29/14

Lot #: PH2019

Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	1. Were custody seals present on the cooler?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: <u>NA5/NA6</u> °C / / °C / / °C / / °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: # <u>3</u> IR Gun Correction Factor: <u>0.1</u> °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by <u>(SRC)</u> phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes <input type="checkbox"/>	No <input type="checkbox"/>	4. Is the commercial courier's packing slip attached to this form?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5. Were proper custody procedures (relinquished/received) followed?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	5a. Were samples relinquished by client to commercial courier?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	6. Were sample IDs listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	7. Were sample IDs listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	8. Was collection date & time listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	9. Was collection date & time listed on all sample containers?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	10. Did all container label information (ID, date, time) agree with the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	11. Were tests to be performed listed on the COC?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	12. Did all samples arrive in the proper containers for each test?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	14. Was adequate sample volume available?
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	16. Were any samples containers missing?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	17. Were there any excess samples not listed on COC?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	18. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	22. Were collection temperatures documented on the COC for NC samples?
Yes <input type="checkbox"/>	No <input type="checkbox"/>	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) using SR # _____		
Sample(s) _____ were received with bubbles >6 mm in diameter.		
Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)		
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____		
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____		
Sample labels applied by: <u>mam</u> Verified by: <u>mam</u> Date: <u>8/29/14</u>		

Comments:

LABORATORY REPORT

This report contains 15 pages.
(including the cover page)

If you have any questions concerning this report, please do not hesitate to call us at
(800) 332-4345 or (574) 233-4777.

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Eaton Analytical, Inc.*



110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Shealy Environmental Services

Report: 318850

Attn: Nisreen Saikaly
106 Vantage Point Drive
West Columbia, SC 29172

Priority: Immediate Verbal

Status: Final

PWS ID: Not Supplied

Lab ID #: 95005

Copies to: None

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3038856	PF04091 PW1	524.2	06/04/14 11:50	Client	06/06/14 09:15
3038857	PF04091 PW2	524.2	06/04/14 12:50	Client	06/06/14 09:15
3038858	PF04091 PW3	524.2	06/04/14 13:30	Client	06/06/14 09:15
3038859	PF04091 Chapman Pond	524.2	06/04/14 13:40	Client	06/06/14 09:15
3038860	PF04091 PW4	524.2	06/04/14 14:15	Client	06/06/14 09:15

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Trott at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature Title Date

Client Name: Shealy Environmental Services
Report #: 318850

Sampling Point: PF04091 PW1

PWS ID: Not Supplied

Volatile Organic Chemicals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
2990	Benzene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2993	Bromobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2430	Bromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2943	Bromodichloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2942	Bromoform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2214	Bromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2422	n-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2428	sec-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2426	tert-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2982	Carbon tetrachloride	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2989	Chlorobenzene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2216	Chloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2941	Chloroform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2210	Chloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2965	2-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2966	4-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2944	Dibromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2950	Total Trihalomethanes	524.2	0.08 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2931	1,2-Dibromo-3-chloropropane (DBCP)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 13:26	3038856
2946	1,2-Dibromoethane (EDB)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 13:26	3038856
2408	Dibromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2968	1,2-Dichlorobenzene	524.2	0.6 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2967	1,3-Dichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2969	1,4-Dichlorobenzene	524.2	0.075 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2212	Dichlorodifluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2978	1,1-Dichloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2980	1,2-Dichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2977	1,1-Dichloroethylene	524.2	0.007 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2380	cis-1,2-Dichloroethylene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2979	trans-1,2-Dichloroethylene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2964	Dichloromethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2983	1,2-Dichloropropane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2412	1,3-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2416	2,2-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2410	1,1-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2228	cis-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2224	trans-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2413	1,3-Dichloropropylene, cis & trans	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2992	Ethylbenzene	524.2	0.7 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2246	Hexachlorobutadiene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2994	Isopropylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2030	4-Isopropyltoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2251	Methyl-t-butyl ether (MTBE)	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856

2248	Naphthalene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2998	n-Propylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2996	Styrene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2986	1,1,1,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2988	1,1,2,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2987	Tetrachloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2991	Toluene	524.2	1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2420	1,2,3-Trichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2378	1,2,4-Trichlorobenzene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2981	1,1,1-Trichloroethane	524.2	0.2 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2985	1,1,2-Trichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2984	Trichloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2218	Trichlorofluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2414	1,2,3-Trichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2418	1,2,4-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2424	1,3,5-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2976	Vinyl chloride	524.2	0.002 *	0.0002	< 0.0002	mg/L	---	06/06/14 13:26	3038856
2997	1,2-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2963	1,3 + 1,4-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856
2955	Xylenes, Total	524.2	10 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:26	3038856

Compliance monitoring for 1,2-Dibromo-3-chloropropane (DBCP) must be done using EPA method 504.1.

Compliance monitoring for 1,2-Dibromoethane (EDB) must be done using EPA method 504.1.

Sampling Point: PF04091 PW2

PWS ID: Not Supplied

Volatile Organic Chemicals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
2990	Benzene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2993	Bromobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2430	Bromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2943	Bromodichloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2942	Bromoform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2214	Bromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2422	n-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2428	sec-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2426	tert-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2982	Carbon tetrachloride	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2989	Chlorobenzene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2216	Chloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2941	Chloroform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2210	Chloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2965	2-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2966	4-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2944	Dibromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2950	Total Trihalomethanes	524.2	0.08 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2931	1,2-Dibromo-3-chloropropane (DBCP)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 13:59	3038857
2946	1,2-Dibromoethane (EDB)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 13:59	3038857
2408	Dibromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2968	1,2-Dichlorobenzene	524.2	0.6 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2967	1,3-Dichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2969	1,4-Dichlorobenzene	524.2	0.075 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2212	Dichlorodifluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2978	1,1-Dichloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2980	1,2-Dichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2977	1,1-Dichloroethylene	524.2	0.007 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2380	cis-1,2-Dichloroethylene	524.2	0.07 *	0.0005	0.0069	mg/L	---	06/06/14 13:59	3038857
2979	trans-1,2-Dichloroethylene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2964	Dichloromethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2983	1,2-Dichloropropane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2412	1,3-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2416	2,2-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2410	1,1-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2228	cis-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2224	trans-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2413	1,3-Dichloropropylene, cis & trans	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2992	Ethylbenzene	524.2	0.7 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2246	Hexachlorobutadiene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2994	Isopropylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2030	4-Isopropyltoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2251	Methyl-t-butyl ether (MTBE)	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857

2248	Naphthalene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2998	n-Propylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2996	Styrene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2986	1,1,1,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2988	1,1,2,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2987	Tetrachloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2991	Toluene	524.2	1 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2420	1,2,3-Trichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2378	1,2,4-Trichlorobenzene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2981	1,1,1-Trichloroethane	524.2	0.2 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2985	1,1,2-Trichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2984	Trichloroethylene	524.2	0.005 *	0.0005	0.064	mg/L	---	06/06/14 20:37	3038857
2218	Trichlorofluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2414	1,2,3-Trichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2418	1,2,4-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2424	1,3,5-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2976	Vinyl chloride	524.2	0.002 *	0.0002	< 0.0002	mg/L	---	06/06/14 13:59	3038857
2997	1,2-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2963	1,3 + 1,4-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857
2955	Xylenes, Total	524.2	10 *	0.0005	< 0.0005	mg/L	---	06/06/14 13:59	3038857

Compliance monitoring for 1,2-Dibromo-3-chloropropane (DBCP) must be done using EPA method 504.1.

Compliance monitoring for 1,2-Dibromoethane (EDB) must be done using EPA method 504.1.

Sampling Point: PF04091 PW3

PWS ID: Not Supplied

Volatile Organic Chemicals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
2990	Benzene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2993	Bromobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2430	Bromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2943	Bromodichloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2942	Bromoform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2214	Bromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2422	n-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2428	sec-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2426	tert-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2982	Carbon tetrachloride	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2989	Chlorobenzene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2216	Chloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2941	Chloroform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2210	Chloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2965	2-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2966	4-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2944	Dibromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2950	Total Trihalomethanes	524.2	0.08 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2931	1,2-Dibromo-3-chloropropane (DBCP)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 14:32	3038858
2946	1,2-Dibromoethane (EDB)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 14:32	3038858
2408	Dibromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2968	1,2-Dichlorobenzene	524.2	0.6 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2967	1,3-Dichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2969	1,4-Dichlorobenzene	524.2	0.075 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2212	Dichlorodifluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2978	1,1-Dichloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2980	1,2-Dichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2977	1,1-Dichloroethylene	524.2	0.007 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2380	cis-1,2-Dichloroethylene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2979	trans-1,2-Dichloroethylene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2964	Dichloromethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2983	1,2-Dichloropropane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2412	1,3-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2416	2,2-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2410	1,1-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2228	cis-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2224	trans-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2413	1,3-Dichloropropylene, cis & trans	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2992	Ethylbenzene	524.2	0.7 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2246	Hexachlorobutadiene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2994	Isopropylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2030	4-Isopropyltoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2251	Methyl-t-butyl ether (MTBE)	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858

2248	Naphthalene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2998	n-Propylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2996	Styrene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2986	1,1,1,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2988	1,1,2,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2987	Tetrachloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2991	Toluene	524.2	1 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2420	1,2,3-Trichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2378	1,2,4-Trichlorobenzene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2981	1,1,1-Trichloroethane	524.2	0.2 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2985	1,1,2-Trichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2984	Trichloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2218	Trichlorofluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2414	1,2,3-Trichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2418	1,2,4-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2424	1,3,5-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2976	Vinyl chloride	524.2	0.002 *	0.0002	< 0.0002	mg/L	---	06/06/14 14:32	3038858
2997	1,2-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2963	1,3 + 1,4-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858
2955	Xylenes, Total	524.2	10 *	0.0005	< 0.0005	mg/L	---	06/06/14 14:32	3038858

Compliance monitoring for 1,2-Dibromo-3-chloropropane (DBCP) must be done using EPA method 504.1.

Compliance monitoring for 1,2-Dibromoethane (EDB) must be done using EPA method 504.1.

Sampling Point: PF04091 Chapman Pond

PWS ID: Not Supplied

Volatile Organic Chemicals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
2990	Benzene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2993	Bromobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2430	Bromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2943	Bromodichloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2942	Bromoform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2214	Bromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2422	n-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2428	sec-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2426	tert-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2982	Carbon tetrachloride	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2989	Chlorobenzene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2216	Chloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2941	Chloroform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2210	Chloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2965	2-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2966	4-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2944	Dibromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2950	Total Trihalomethanes	524.2	0.08 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2931	1,2-Dibromo-3-chloropropane (DBCP)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 15:05	3038859
2946	1,2-Dibromoethane (EDB)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 15:05	3038859
2408	Dibromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2968	1,2-Dichlorobenzene	524.2	0.6 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2967	1,3-Dichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2969	1,4-Dichlorobenzene	524.2	0.075 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2212	Dichlorodifluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2978	1,1-Dichloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2980	1,2-Dichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2977	1,1-Dichloroethylene	524.2	0.007 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2380	cis-1,2-Dichloroethylene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2979	trans-1,2-Dichloroethylene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2964	Dichloromethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2983	1,2-Dichloropropane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2412	1,3-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2416	2,2-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2410	1,1-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2228	cis-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2224	trans-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2413	1,3-Dichloropropylene, cis & trans	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2992	Ethylbenzene	524.2	0.7 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2246	Hexachlorobutadiene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2994	Isopropylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2030	4-Isopropyltoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2251	Methyl-t-butyl ether (MTBE)	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859

2248	Naphthalene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2998	n-Propylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2996	Styrene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2986	1,1,1,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2988	1,1,2,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2987	Tetrachloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2991	Toluene	524.2	1 *	0.0005	0.0008	mg/L	---	06/06/14 15:05	3038859
2420	1,2,3-Trichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2378	1,2,4-Trichlorobenzene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2981	1,1,1-Trichloroethane	524.2	0.2 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2985	1,1,2-Trichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2984	Trichloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2218	Trichlorofluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2414	1,2,3-Trichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2418	1,2,4-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2424	1,3,5-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2976	Vinyl chloride	524.2	0.002 *	0.0002	< 0.0002	mg/L	---	06/06/14 15:05	3038859
2997	1,2-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2963	1,3 + 1,4-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859
2955	Xylenes, Total	524.2	10 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:05	3038859

Compliance monitoring for 1,2-Dibromo-3-chloropropane (DBCP) must be done using EPA method 504.1.

Compliance monitoring for 1,2-Dibromoethane (EDB) must be done using EPA method 504.1.

Sampling Point: PF04091 PW4

PWS ID: Not Supplied

Volatile Organic Chemicals									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
2990	Benzene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2993	Bromobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2430	Bromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2943	Bromodichloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2942	Bromoform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2214	Bromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2422	n-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2428	sec-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2426	tert-Butylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2982	Carbon tetrachloride	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2989	Chlorobenzene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2216	Chloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2941	Chloroform	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2210	Chloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2965	2-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2966	4-Chlorotoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2944	Dibromochloromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2950	Total Trihalomethanes	524.2	0.08 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2931	1,2-Dibromo-3-chloropropane (DBCP)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 15:38	3038860
2946	1,2-Dibromoethane (EDB)	524.2	---	0.0002	< 0.0002	mg/L	---	06/06/14 15:38	3038860
2408	Dibromomethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2968	1,2-Dichlorobenzene	524.2	0.6 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2967	1,3-Dichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2969	1,4-Dichlorobenzene	524.2	0.075 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2212	Dichlorodifluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2978	1,1-Dichloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2980	1,2-Dichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2977	1,1-Dichloroethylene	524.2	0.007 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2380	cis-1,2-Dichloroethylene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2979	trans-1,2-Dichloroethylene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2964	Dichloromethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2983	1,2-Dichloropropane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2412	1,3-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2416	2,2-Dichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2410	1,1-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2228	cis-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2224	trans-1,3-Dichloropropylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2413	1,3-Dichloropropylene, cis & trans	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2992	Ethylbenzene	524.2	0.7 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2246	Hexachlorobutadiene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2994	Isopropylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2030	4-Isopropyltoluene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2251	Methyl-t-butyl ether (MTBE)	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860

2248	Naphthalene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2998	n-Propylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2996	Styrene	524.2	0.1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2986	1,1,1,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2988	1,1,2,2-Tetrachloroethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2987	Tetrachloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2991	Toluene	524.2	1 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2420	1,2,3-Trichlorobenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2378	1,2,4-Trichlorobenzene	524.2	0.07 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2981	1,1,1-Trichloroethane	524.2	0.2 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2985	1,1,2-Trichloroethane	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2984	Trichloroethylene	524.2	0.005 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2218	Trichlorofluoromethane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2414	1,2,3-Trichloropropane	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2418	1,2,4-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2424	1,3,5-Trimethylbenzene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2976	Vinyl chloride	524.2	0.002 *	0.0002	< 0.0002	mg/L	---	06/06/14 15:38	3038860
2997	1,2-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2963	1,3 + 1,4-Xylene	524.2	---	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860
2955	Xylenes, Total	524.2	10 *	0.0005	< 0.0005	mg/L	---	06/06/14 15:38	3038860

Compliance monitoring for 1,2-Dibromo-3-chloropropane (DBCP) must be done using EPA method 504.1.

Compliance monitoring for 1,2-Dibromoethane (EDB) must be done using EPA method 504.1.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Urofin (UL)

Number 31880 256204

318850

Form with fields for Client, Report to Contact, Sampler, Quote No., Address, Telephone No., Fax No., Email, Waybill No., City, State, Zip Code, Preservative, Project Name, Project Number, P.O Number, Matrix, Analysis, Sample ID / Description, Date, Time, G=Grab, C=Composite, GW, DW, WW, S, Other, Remarks / Cooler ID.

RUSH

Analysis

524 Vol

Immediate Verbal

Client Provided Sample Container

Form with fields for Turn Around Time Required, Sample Disposal, QC Requirements, Possible Hazard Identification, and a table for Relinquished by / Sampler with Date and Time.

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) Yes No Ice Pack Receipt Temp. 0 °C Temp. Blank Y / N

Appendix H

3-D Conceptual Site Model

NOT ABLE TO UPLOAD