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December 08, 2017

Sachin Butala
RSB Solutions, Inc.
6001 Savoy Drive, Suite 110
Houston, TX 77036

Work Order: **HS17120041**

Laboratory Results for: **William Smalling, PC**

Dear Sachin,

ALS Environmental received 5 sample(s) on Dec 01, 2017 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: Jumoke.Lawal

Dane J. Wacasey

Client:	RSB Solutions, Inc.	**TRRP Laboratory Data Package Cover Page**
Project:	William Smalling, PC	
WorkOrder:	**HS17120041**	

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 Sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

a) Items consistent with NELAC Chapter 5,
b) dilution factors,
c) preparation methods,
d) cleanup methods, and
e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:

a) Calculated recovery (%R), and
b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:

a) LCS spiking amounts,
b) Calculated %R for each analyte, and
c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a) Samples associated with the MS/MSD clearly identified,
b) MS/MSD spiking amounts,
c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
d) Calculated %Rs and relative percent differences (RPDs), and
e) The laboratory's MS/MSD QC limits.

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

a) the amount of analyte measured in the duplicate,
b) the calculated RPD, and
c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client:	RSB Solutions, Inc.	**TRRP Laboratory Data Package Cover Page**
Project:	William Smalling, PC	
WorkOrder:	**HS17120041**	

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Dane J. Wacasey

Laboratory Review Checklist: Reportable Data	
Laboratory Name: ALS Laboratory Group	LRC Date: 12/08/2017
Project Name: William Smalling, PC	Laboratory Job Number: HS17120041
Reviewer Name: Dane Wacasey	Prep Batch Number(s): 122824,122857,122932,122983,R306624,R306646,R306661, R306693,R306722

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?	X				
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	**Analytical duplicate data**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
O Organic analyses I Inorganic analyses and general chemistry, when applicable
N Not applicable
NR Not Reviewed

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data	
Laboratory Name: ALS Laboratory Group	LRC Date: 12/08/2017
Project Name: William Smalling, PC	Laboratory Job Number: HS17120041
Reviewer Name: Dane Wacasey	Prep Batch Number(s) 122824,122857,122932,122983,R306624,R306646,R306661,R306693,R306722

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)**					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?		X			4
S3	O	**Mass spectral tuning:**					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal standards (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw data** (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively identified compounds (TICs):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) results:**					
		Were percent recoveries within method QC limits?	X				
S9	I	**Serial dilutions, post digestion spikes, and method of standard additions**					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			5
S10	OI	**Method detection limit (MDL) studies**					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency test reports:**					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/analyte identification procedures**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of analyst competency (DOC)**					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/validation documentation for methods** (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory standard operating procedures (SOPs):**					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package su□mitted in the TRRP□required report(s). Items identified by the letter "S" should be retained and made availa□le upon re□uest for the appropriate retention period.
O □ Organic □nalyses□I □ Inorganic □nalyses □and general chemistry, □hen applica□le□□
N□ □ Not □pplica□le□
NR □ Not Revie□ed□
R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Data	
Laboratory Name: ALS Laboratory Group	LRC Date: 12/08/2017
Project Name: William Smalling, PC	Laboratory Job Number: HS17120041
Reviewer Name: Dane Wacasey	Prep Batch Number(s): 122824,122857,122932,122983,R306624,R306646,R306661,R306693, R306722

ER#[5]	Description
1	Volatile Organics Method SW8260, sample 2, surrogate Toluene-d8 recovered above the upper control limit due to matrix effect. Confirmed by reanalysis.
2	Batch 122824, Metals Method SW6020, sample HS17111469-10, MS and MSD were performed on unrelated sample. Batch R306693, Volatile Organics Method SW8260, sample HS17120069-01, MS and MSD were performed on unrelated sample.
3	Batch 122824, Metals Method SW6020, sample HS17111469-10, MS/MSD RPD is for an unrelated sample.
4	See Run Log and CCB Exceptions Report.
5	Batch 122824, Metals Method SW6020, sample HS17111469-10, PDS was performed on unrelated sample.

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP required report(s). Items identified by the letter "S" should be retained and made availa le upon re uest for the appropriate retention period.
O Organic nalyses I Inorganic nalyses and general chemistry, hen applica le
N Not pplica le
NR Not Revie ed
R E ception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

FORM 13 - ANALYSIS RUN LOG

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041
Start Date: 07-Dec-2017 End Date: 07-Dec-2017

Run ID:ICPMS04_306700
Instrument:ICPMS04
Method:SW6020

Sample No.	D/F	Time	FileID	Analytes
CCV 12	1	07-Dec-2017 15:45	157_CCV.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCB 12	1	07-Dec-2017 15:47	158_CCB.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
1	1	07-Dec-2017 15:56	162SMPL.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V
2	1	07-Dec-2017 15:58	163SMPL.d	AG AS B BE CD CO CR CU PB SB SE SN SR Ti TL V
3	1	07-Dec-2017 16:00	164SMPL.d	AG AS B BA BE CD CO CR CU FE PB SB SE SN SR Ti TL V
4	1	07-Dec-2017 16:02	165SMPL.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
5	1	07-Dec-2017 16:04	166SMPL.d	AG AS B BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCV 13	1	07-Dec-2017 16:11	169_CCV.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCB 13	1	07-Dec-2017 16:13	170_CCB.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCV 14	1	07-Dec-2017 16:37	181_CCV.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCB 14	1	07-Dec-2017 16:39	182_CCB.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCV 15	1	07-Dec-2017 17:03	193_CCV.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
CCB 15	1	07-Dec-2017 17:05	194_CCB.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
LLICV2	1	07-Dec-2017 17:07	195SMPL.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
LLICV5	1	07-Dec-2017 17:10	196LICV.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
ICSA	1	07-Dec-2017 17:12	197ICSA.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN
ICSAB	1	07-Dec-2017 17:14	198ICSB.d	AG AS B BA BE CD CO CR CU FE MN PB SB SE SN SR Ti TL V ZN

CCB EXCEPTIONS REPORT

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

Run ID:ICPMS04_306700
Instrument:ICPMS04
Method:SW6020

CCB 12 Date: 07-Dec-2017 15:47 Seq: 4341259 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	30.34	11	20

CCB 13 Date: 07-Dec-2017 16:13 Seq: 4341271 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Boron	26.63	11	20
Vanadium	-0.672	0.6	5

CCB 14 Date: 07-Dec-2017 16:39 Seq: 4341283 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Antimony	0.505	0.4	2
Boron	23.64	11	20
Vanadium	-0.623	0.6	5

CCB 15 Date: 07-Dec-2017 17:05 Seq: 4341295 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Antimony	0.613	0.4	2
Boron	21.96	11	20
Vanadium	-0.604	0.6	5

Client: RSB Solutions, Inc.
Project: William Smalling, PC
Work Order: HS17120041

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17120041-01	1	Soil		01-Dec-2017 09:15	01-Dec-2017 12:30	☐
HS17120041-02	2	Soil		01-Dec-2017 09:45	01-Dec-2017 12:30	☐
HS17120041-03	3	Soil		01-Dec-2017 09:30	01-Dec-2017 12:30	☐
HS17120041-04	4	Soil		01-Dec-2017 10:00	01-Dec-2017 12:30	☐
HS17120041-05	5	Soil		01-Dec-2017 09:57	01-Dec-2017 12:30	☐

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	1	Lab ID:HS17120041-01	
Collection Date:	01-Dec-2017 09:15	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Benzene	U		0.00032	0.0032	mg/Kg-dry	1	06-Dec-2017 08:36
Ethylbenzene	U		0.00044	0.0032	mg/Kg-dry	1	06-Dec-2017 08:36
Toluene	U		0.00038	0.0032	mg/Kg-dry	1	06-Dec-2017 08:36
Xylenes, Total	U		0.00063	0.0032	mg/Kg-dry	1	06-Dec-2017 08:36
Surr: 1,2-Dichloroethane-d4	*100*			*70-126*	*%REC*	*1*	*06-Dec-2017 08:36*
Surr: 4-Bromofluorobenzene	*97.4*			*73-120*	*%REC*	*1*	*06-Dec-2017 08:36*
Surr: Dibromofluoromethane	*99.5*			*70-130*	*%REC*	*1*	*06-Dec-2017 08:36*
Surr: Toluene-d8	*99.7*			*82-121*	*%REC*	*1*	*06-Dec-2017 08:36*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 01-Dec-2017		Analyst: MBG
nC6 to nC12	U		5.4	36	mg/Kg-dry	1	05-Dec-2017 04:21
>nC12 to nC28	U		7.1	36	mg/Kg-dry	1	05-Dec-2017 04:21
>nC28 to nC35	U		7.1	36	mg/Kg-dry	1	05-Dec-2017 04:21
Total Petroleum Hydrocarbon	U		5.4	36	mg/Kg-dry	1	05-Dec-2017 04:21
Surr: 2-Fluorobiphenyl	*87.6*			*70-130*	*%REC*	*1*	*05-Dec-2017 04:21*
Surr: Trifluoromethyl benzene	*78.0*			*70-130*	*%REC*	*1*	*05-Dec-2017 04:21*
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 05-Dec-2017		Analyst: JDE
Aluminum	**6,330**		**27.6**	**119**	**mg/Kg-dry**	100	08-Dec-2017 12:38
Antimony	**0.606**		**0.0773**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Arsenic	**2.52**		**0.0832**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Barium	**159**		**0.0357**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Beryllium	**0.509**	J	**0.0250**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Boron	**5.29**		**0.916**	**2.97**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Cadmium	**0.738**		**0.0321**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Chromium	**18.1**		**0.0274**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Cobalt	**3.30**		**0.0178**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Copper	**37.5**		**0.0452**	**0.238**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Iron	**8,470**		**2.18**	**59.5**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Lead	**64.8**		**0.0155**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Manganese	**115**		**0.0511**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Selenium	**0.332**	J	**0.108**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Silver	**0.105**	J	**0.0178**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Strontium	**36.2**		**0.262**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Thallium	U		0.265	0.595	mg/Kg-dry	1	07-Dec-2017 15:56
Tin	**2.69**		**0.0761**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Titanium	**13.9**		**0.0476**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Vanadium	**14.6**		**0.0892**	**0.595**	**mg/Kg-dry**	1	07-Dec-2017 15:56
Zinc	**273**		**20.2**	**59.5**	**mg/Kg-dry**	100	08-Dec-2017 12:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.		**ANALYTICAL REPORT**
Project:	William Smalling, PC		WorkOrder:HS17120041
Sample ID:	1		Lab ID:HS17120041-01
Collection Date:	01-Dec-2017 09:15		Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 06-Dec-2017		Analyst: JC
Mercury	**0.0537**		**0.000580**	**0.00411**	**mg/Kg-dry**	1	06-Dec-2017 18:52
MOISTURE		**Method:SW3550**					Analyst: DFF
Percent Moisture	**18.1**		**0.0100**	**0.0100**	**wt%**	1	05-Dec-2017 11:45
ANIONS BY SW9056A		**Method:SW9056**			Prep:SW9056 / 04-Dec-2017		Analyst: JBA
Fluoride	**5.18**		**0.364**	**1.21**	**mg/Kg-dry**	1	04-Dec-2017 18:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	2	Lab ID:HS17120041-02	
Collection Date:	01-Dec-2017 09:45	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Benzene	U		0.00043	0.0043	mg/Kg-dry	1	07-Dec-2017 12:54
Ethylbenzene	U		0.00060	0.0043	mg/Kg-dry	1	07-Dec-2017 12:54
Toluene	U		0.00051	0.0043	mg/Kg-dry	1	07-Dec-2017 12:54
Xylenes, Total	U		0.00085	0.0043	mg/Kg-dry	1	07-Dec-2017 12:54
Surr: 1,2-Dichloroethane-d4	*104*			*70-126*	*%REC*	*1*	*07-Dec-2017 12:54*
Surr: 4-Bromofluorobenzene	*75.6*			*73-120*	*%REC*	*1*	*07-Dec-2017 12:54*
Surr: Dibromofluoromethane	*104*			*70-130*	*%REC*	*1*	*07-Dec-2017 12:54*
Surr: Toluene-d8	*122*	*S*		*82-121*	*%REC*	*1*	*07-Dec-2017 12:54*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 01-Dec-2017		Analyst: MBG
nC6 to nC12	U		5.7	39	mg/Kg-dry	1	05-Dec-2017 23:21
>nC12 to nC28	**490**		**7.6**	**39**	**mg/Kg-dry**	1	05-Dec-2017 23:21
>nC28 to nC35	**120**		**7.6**	**39**	**mg/Kg-dry**	1	05-Dec-2017 23:21
Total Petroleum Hydrocarbon	**610**		**5.7**	**39**	**mg/Kg-dry**	1	05-Dec-2017 23:21
Surr: 2-Fluorobiphenyl	*91.7*			*70-130*	*%REC*	*1*	*05-Dec-2017 23:21*
Surr: Trifluoromethyl benzene	*91.9*			*70-130*	*%REC*	*1*	*05-Dec-2017 23:21*
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 05-Dec-2017		Analyst: JDE
Aluminum	**4,800**		**13.2**	**57.0**	**mg/Kg-dry**	50	08-Dec-2017 12:40
Antimony	**3.32**		**0.0741**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Arsenic	**6.94**		**0.0798**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Barium	**236**		**1.71**	**28.5**	**mg/Kg-dry**	50	08-Dec-2017 12:40
Beryllium	**0.361**	J	**0.0240**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Boron	**9.74**		**0.878**	**2.85**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Cadmium	**1.72**		**0.0308**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Chromium	**33.9**		**0.0262**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Cobalt	**30.9**		**0.0171**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Copper	**194**		**0.0433**	**0.228**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Iron	**29,700**		**104**	**2850**	**mg/Kg-dry**	50	08-Dec-2017 12:40
Lead	**103**		**0.0148**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Manganese	**255**		**2.45**	**28.5**	**mg/Kg-dry**	50	08-Dec-2017 12:40
Selenium	**0.696**		**0.104**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Silver	**0.147**	J	**0.0171**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Strontium	**54.2**		**0.251**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Thallium	U		0.254	0.570	mg/Kg-dry	1	07-Dec-2017 15:58
Tin	**4.96**		**0.0730**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Titanium	**35.6**		**0.0456**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Vanadium	**112**		**0.0855**	**0.570**	**mg/Kg-dry**	1	07-Dec-2017 15:58
Zinc	**1,020**		**9.69**	**28.5**	**mg/Kg-dry**	50	08-Dec-2017 12:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	2	Lab ID:HS17120041-02	
Collection Date:	01-Dec-2017 09:45	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 06-Dec-2017		Analyst: JC
Mercury	**0.139**		**0.000603**	**0.00427**	**mg/Kg-dry**	1	06-Dec-2017 18:53
MOISTURE		**Method:SW3550**					Analyst: DFF
Percent Moisture	**15.5**		**0.0100**	**0.0100**	**wt%**	1	05-Dec-2017 11:45
ANIONS BY SW9056A		**Method:SW9056**			Prep:SW9056 / 04-Dec-2017		Analyst: JBA
Fluoride	**1.93**		**0.348**	**1.16**	**mg/Kg-dry**	1	04-Dec-2017 16:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	3	Lab ID:HS17120041-03	
Collection Date:	01-Dec-2017 09:30	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Benzene	U		0.00038	0.0038	mg/Kg-dry	1	06-Dec-2017 17:07
Ethylbenzene	U		0.00053	0.0038	mg/Kg-dry	1	06-Dec-2017 17:07
Toluene	U		0.00046	0.0038	mg/Kg-dry	1	06-Dec-2017 17:07
Xylenes, Total	U		0.00076	0.0038	mg/Kg-dry	1	06-Dec-2017 17:07
Surr: 1,2-Dichloroethane-d4	*104*			*70-126*	*%REC*	*1*	*06-Dec-2017 17:07*
Surr: 4-Bromofluorobenzene	*92.5*			*73-120*	*%REC*	*1*	*06-Dec-2017 17:07*
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	*1*	*06-Dec-2017 17:07*
Surr: Toluene-d8	*106*			*82-121*	*%REC*	*1*	*06-Dec-2017 17:07*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 01-Dec-2017		Analyst: MBG
nC6 to nC12	U		5.7	39	mg/Kg-dry	1	05-Dec-2017 23:50
>nC12 to nC28	U		7.5	39	mg/Kg-dry	1	05-Dec-2017 23:50
>nC28 to nC35	U		7.5	39	mg/Kg-dry	1	05-Dec-2017 23:50
Total Petroleum Hydrocarbon	U		5.7	39	mg/Kg-dry	1	05-Dec-2017 23:50
Surr: 2-Fluorobiphenyl	*93.6*			*70-130*	*%REC*	*1*	*05-Dec-2017 23:50*
Surr: Trifluoromethyl benzene	*99.2*			*70-130*	*%REC*	*1*	*05-Dec-2017 23:50*
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 05-Dec-2017		Analyst: JDE
Aluminum	**7,620**		**25.9**	**112**	**mg/Kg-dry**	100	08-Dec-2017 12:42
Antimony	**5.25**		**0.0726**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Arsenic	**3.60**		**0.0782**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Barium	**123**		**0.0335**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Beryllium	**0.868**		**0.0235**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Boron	**8.05**		**0.861**	**2.79**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Cadmium	**1.20**		**0.0302**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Chromium	**24.4**		**0.0257**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Cobalt	**4.10**		**0.0168**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Copper	**44.0**		**0.0425**	**0.224**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Iron	**16,000**		**2.05**	**55.9**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Lead	**69.6**		**0.0145**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Manganese	**209**		**4.81**	**55.9**	**mg/Kg-dry**	100	08-Dec-2017 12:42
Selenium	**0.500**	J	**0.102**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Silver	**0.104**	J	**0.0168**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Strontium	**23.9**		**0.246**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Thallium	U		0.249	0.559	mg/Kg-dry	1	07-Dec-2017 16:00
Tin	**5.02**		**0.0715**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Titanium	**20.6**		**0.0447**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Vanadium	**17.4**		**0.0838**	**0.559**	**mg/Kg-dry**	1	07-Dec-2017 16:00
Zinc	**543**		**19.0**	**55.9**	**mg/Kg-dry**	100	08-Dec-2017 12:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	3	Lab ID:HS17120041-03	
Collection Date:	01-Dec-2017 09:30	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 06-Dec-2017		Analyst: JC
Mercury	**0.0914**		**0.000597**	**0.00422**	**mg/Kg-dry**	1	06-Dec-2017 18:55
MOISTURE		**Method:SW3550**					Analyst: DFF
Percent Moisture	**16.2**		**0.0100**	**0.0100**	**wt%**	1	05-Dec-2017 11:45
ANIONS BY SW9056A		**Method:SW9056**			Prep:SW9056 / 04-Dec-2017		Analyst: JBA
Fluoride	**2.30**		**0.356**	**1.19**	**mg/Kg-dry**	1	04-Dec-2017 19:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	4	Lab ID:HS17120041-04	
Collection Date:	01-Dec-2017 10:00	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Benzene	U		0.00034	0.0034	mg/Kg-dry	1	07-Dec-2017 01:16
Ethylbenzene	U		0.00047	0.0034	mg/Kg-dry	1	07-Dec-2017 01:16
Toluene	U		0.00041	0.0034	mg/Kg-dry	1	07-Dec-2017 01:16
Xylenes, Total	U		0.00068	0.0034	mg/Kg-dry	1	07-Dec-2017 01:16
Surr: 1,2-Dichloroethane-d4	*95.9*			*70-126*	*%REC*	*1*	*07-Dec-2017 01:16*
Surr: 4-Bromofluorobenzene	*92.6*			*73-120*	*%REC*	*1*	*07-Dec-2017 01:16*
Surr: Dibromofluoromethane	*100*			*70-130*	*%REC*	*1*	*07-Dec-2017 01:16*
Surr: Toluene-d8	*102*			*82-121*	*%REC*	*1*	*07-Dec-2017 01:16*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 01-Dec-2017		Analyst: MBG
nC6 to nC12	U		4.4	30	mg/Kg-dry	1	06-Dec-2017 00:19
>nC12 to nC28	U		5.8	30	mg/Kg-dry	1	06-Dec-2017 00:19
>nC28 to nC35	U		5.8	30	mg/Kg-dry	1	06-Dec-2017 00:19
Total Petroleum Hydrocarbon	U		4.4	30	mg/Kg-dry	1	06-Dec-2017 00:19
Surr: 2-Fluorobiphenyl	*88.7*			*70-130*	*%REC*	*1*	*06-Dec-2017 00:19*
Surr: Trifluoromethyl benzene	*92.0*			*70-130*	*%REC*	*1*	*06-Dec-2017 00:19*
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 05-Dec-2017		Analyst: RPM
Aluminum	**8,340**		**24.1**	**104**	**mg/Kg-dry**	100	08-Dec-2017 13:37
Antimony	**0.149**	J	**0.0675**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Arsenic	**2.03**		**0.0727**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Barium	**136**		**0.0312**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Beryllium	**0.521**		**0.0218**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Boron	**6.44**		**0.800**	**2.60**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Cadmium	**0.183**	J	**0.0281**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Chromium	**15.3**		**0.0239**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Cobalt	**5.49**		**0.0156**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Copper	**10.7**		**0.0395**	**0.208**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Iron	**12,500**		**1.90**	**52.0**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Lead	**21.8**		**0.0135**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Manganese	**154**		**0.0447**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Selenium	**0.365**	J	**0.0946**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Silver	**0.0890**	J	**0.0156**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Strontium	**40.6**		**0.229**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Thallium	U		0.232	0.520	mg/Kg-dry	1	07-Dec-2017 16:02
Tin	**1.28**		**0.0665**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Titanium	**95.3**		**0.0416**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Vanadium	**17.9**		**0.0779**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02
Zinc	**104**		**0.177**	**0.520**	**mg/Kg-dry**	1	07-Dec-2017 16:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	4	Lab ID:HS17120041-04	
Collection Date:	01-Dec-2017 10:00	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 06-Dec-2017		Analyst: JC
Mercury	**0.0197**		**0.000560**	**0.00396**	**mg/Kg-dry**	1	06-Dec-2017 19:00
MOISTURE		**Method:SW3550**					Analyst: DFF
Percent Moisture	**9.63**		**0.0100**	**0.0100**	**wt%**	1	05-Dec-2017 11:45
ANIONS BY SW9056A		**Method:SW9056**			Prep:SW9056 / 04-Dec-2017		Analyst: JBA
Fluoride	**2.21**		**0.329**	**1.10**	**mg/Kg-dry**	1	04-Dec-2017 19:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.	**ANALYTICAL REPORT**	
Project:	William Smalling, PC	WorkOrder:HS17120041	
Sample ID:	5	Lab ID:HS17120041-05	
Collection Date:	01-Dec-2017 09:57	Matrix:Soil	

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**					Analyst: WLR
Benzene	U		0.00037	0.0037	mg/Kg-dry	1	07-Dec-2017 01:39
Ethylbenzene	U		0.00051	0.0037	mg/Kg-dry	1	07-Dec-2017 01:39
Toluene	U		0.00044	0.0037	mg/Kg-dry	1	07-Dec-2017 01:39
Xylenes, Total	U		0.00073	0.0037	mg/Kg-dry	1	07-Dec-2017 01:39
Surr: 1,2-Dichloroethane-d4	*103*			*70-126*	*%REC*	*1*	*07-Dec-2017 01:39*
Surr: 4-Bromofluorobenzene	*88.2*			*73-120*	*%REC*	*1*	*07-Dec-2017 01:39*
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	*1*	*07-Dec-2017 01:39*
Surr: Toluene-d8	*107*			*82-121*	*%REC*	*1*	*07-Dec-2017 01:39*
TEXAS TPH BY TX1005		**Method:TX1005**			Prep:TX1005PR / 01-Dec-2017		Analyst: MBG
nC6 to nC12	U		4.0	27	mg/Kg-dry	1	05-Dec-2017 06:17
>nC12 to nC28	U		5.2	27	mg/Kg-dry	1	05-Dec-2017 06:17
>nC28 to nC35	U		5.2	27	mg/Kg-dry	1	05-Dec-2017 06:17
Total Petroleum Hydrocarbon	U		4.0	27	mg/Kg-dry	1	05-Dec-2017 06:17
Surr: 2-Fluorobiphenyl	*84.1*			*70-130*	*%REC*	*1*	*05-Dec-2017 06:17*
Surr: Trifluoromethyl benzene	*73.2*			*70-130*	*%REC*	*1*	*05-Dec-2017 06:17*
METALS BY SW6020A		**Method:SW6020**			Prep:SW3050A / 05-Dec-2017		Analyst: RPM
Aluminum	**8,170**		**24.5**	**106**	**mg/Kg-dry**	100	08-Dec-2017 13:39
Antimony	**0.110**	J	**0.0688**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Arsenic	**2.02**		**0.0741**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Barium	**336**		**3.17**	**52.9**	**mg/Kg-dry**	100	08-Dec-2017 13:39
Beryllium	**0.469**	J	**0.0222**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Boron	**8.64**		**0.815**	**2.65**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Cadmium	**0.236**	J	**0.0286**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Chromium	**11.0**		**0.0243**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Cobalt	**2.08**		**0.0159**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Copper	**8.96**		**0.0402**	**0.212**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Iron	**6,350**		**1.94**	**52.9**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Lead	**12.3**		**0.0138**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Manganese	**126**		**0.0455**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Selenium	**0.459**	J	**0.0963**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Silver	**0.0330**	J	**0.0159**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Strontium	**167**		**0.233**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Thallium	U		0.236	0.529	mg/Kg-dry	1	07-Dec-2017 16:04
Tin	**1.24**		**0.0677**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Titanium	**47.3**		**0.0423**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Vanadium	**14.8**		**0.0794**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04
Zinc	**66.0**		**0.180**	**0.529**	**mg/Kg-dry**	1	07-Dec-2017 16:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:	RSB Solutions, Inc.		**ANALYTICAL REPORT**
Project:	William Smalling, PC		WorkOrder:HS17120041
Sample ID:	5		Lab ID:HS17120041-05
Collection Date:	01-Dec-2017 09:57		Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
MERCURY BY SW7471B		**Method:SW7471A**			Prep:SW7471A / 06-Dec-2017		Analyst: JC
Mercury	**0.0157**		**0.000536**	**0.00379**	**mg/Kg-dry**	1	06-Dec-2017 19:02
MOISTURE		**Method:SW3550**					Analyst: DFF
Percent Moisture	**8.60**		**0.0100**	**0.0100**	**wt%**	1	05-Dec-2017 11:45
ANIONS BY SW9056A		**Method:SW9056**			Prep:SW9056 / 04-Dec-2017		Analyst: JBA
Fluoride	**2.09**		**0.327**	**1.09**	**mg/Kg-dry**	1	04-Dec-2017 20:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

Batch ID: 2135 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS17120041-01	1	9.527 (g)	5 (mL)	0.52	TerraCore (5035A)
HS17120041-02	1	7.314 (g)	5 (mL)	0.68	TerraCore (5035A)
HS17120041-02	2	6.962 (g)	5 (mL)	0.72	TerraCore (5035A)
HS17120041-03	1	7.829 (g)	5 (mL)	0.64	TerraCore (5035A)
HS17120041-04	1	8.181 (g)	5 (mL)	0.61	TerraCore (5035A)
HS17120041-05	1	7.491 (g)	5 (mL)	0.67	TerraCore (5035A)

Batch ID: 122824 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17120041-01	1	0.5134	50 (mL)	97.39
HS17120041-02	1	0.5188	50 (mL)	96.38
HS17120041-03	1	0.5339	50 (mL)	93.65
HS17120041-04	1	0.5325	50 (mL)	93.9
HS17120041-05	1	0.517	50 (mL)	96.71

Batch ID: 122857 **Method:** TEXAS TPH BY TX1005 **Prep:** TX 1005_S PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17120041-01	1	16.86	10 (mL)	0.5931
HS17120041-02	1	15.29	10 (mL)	0.654
HS17120041-03	1	15.48	10 (mL)	0.646
HS17120041-04	1	18.64	10 (mL)	0.5365
HS17120041-05	1	20.52	10 (mL)	0.4873

Batch ID: 122932 **Method:** ANIONS BY SW9056A **Prep:** 9056_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17120041-01	1	5.0335	50 (mL)	9.933
HS17120041-02	1	5.0986	50 (mL)	9.807
HS17120041-03	1	5.0317	50 (mL)	9.937
HS17120041-04	1	5.0418	50 (mL)	9.917
HS17120041-05	1	5.0147	50 (mL)	9.971

Batch ID: 122983 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17120041-01	1	0.5932	40 (mL)	67.43
HS17120041-02	1	0.5534	40 (mL)	72.28
HS17120041-03	1	0.5641	40 (mL)	70.91
HS17120041-04	1	0.5573	40 (mL)	71.77
HS17120041-05	1	0.5752	40 (mL)	69.54

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 122824	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15		05 Dec 2017 11:00	08 Dec 2017 12:38	100
HS17120041-01	1	01 Dec 2017 09:15		05 Dec 2017 11:00	07 Dec 2017 15:56	1
HS17120041-02	2	01 Dec 2017 09:45		05 Dec 2017 11:00	08 Dec 2017 12:40	50
HS17120041-02	2	01 Dec 2017 09:45		05 Dec 2017 11:00	07 Dec 2017 15:58	1
HS17120041-03	3	01 Dec 2017 09:30		05 Dec 2017 11:00	08 Dec 2017 12:42	100
HS17120041-03	3	01 Dec 2017 09:30		05 Dec 2017 11:00	07 Dec 2017 16:00	1
HS17120041-04	4	01 Dec 2017 10:00		05 Dec 2017 11:00	08 Dec 2017 13:37	100
HS17120041-04	4	01 Dec 2017 10:00		05 Dec 2017 11:00	07 Dec 2017 16:02	1
HS17120041-05	5	01 Dec 2017 09:57		05 Dec 2017 11:00	08 Dec 2017 13:39	100
HS17120041-05	5	01 Dec 2017 09:57		05 Dec 2017 11:00	07 Dec 2017 16:04	1
Batch ID 122857	**Test Name :** TEXAS TPH BY TX1005			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15		01 Dec 2017 17:37	05 Dec 2017 04:21	1
HS17120041-02	2	01 Dec 2017 09:45		01 Dec 2017 17:37	05 Dec 2017 23:21	1
HS17120041-03	3	01 Dec 2017 09:30		01 Dec 2017 17:37	05 Dec 2017 23:50	1
HS17120041-04	4	01 Dec 2017 10:00		01 Dec 2017 17:37	06 Dec 2017 00:19	1
HS17120041-05	5	01 Dec 2017 09:57		01 Dec 2017 17:37	05 Dec 2017 06:17	1
Batch ID 122932	**Test Name :** ANIONS BY SW9056A			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15		04 Dec 2017 08:00	04 Dec 2017 18:16	1
HS17120041-02	2	01 Dec 2017 09:45		04 Dec 2017 08:00	04 Dec 2017 16:49	1
HS17120041-03	3	01 Dec 2017 09:30		04 Dec 2017 08:00	04 Dec 2017 19:21	1
HS17120041-04	4	01 Dec 2017 10:00		04 Dec 2017 08:00	04 Dec 2017 19:43	1
HS17120041-05	5	01 Dec 2017 09:57		04 Dec 2017 08:00	04 Dec 2017 20:04	1
Batch ID 122983	**Test Name :** MERCURY BY SW7471B			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15		06 Dec 2017 11:20	06 Dec 2017 18:52	1
HS17120041-02	2	01 Dec 2017 09:45		06 Dec 2017 11:20	06 Dec 2017 18:53	1
HS17120041-03	3	01 Dec 2017 09:30		06 Dec 2017 11:20	06 Dec 2017 18:55	1
HS17120041-04	4	01 Dec 2017 10:00		06 Dec 2017 11:20	06 Dec 2017 19:00	1
HS17120041-05	5	01 Dec 2017 09:57		06 Dec 2017 11:20	06 Dec 2017 19:02	1
Batch ID R306624	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15			06 Dec 2017 08:36	1
Batch ID R306646	**Test Name :** MOISTURE			**Matrix:** Soil		
HS17120041-01	1	01 Dec 2017 09:15			05 Dec 2017 11:45	1
HS17120041-02	2	01 Dec 2017 09:45			05 Dec 2017 11:45	1
HS17120041-03	3	01 Dec 2017 09:30			05 Dec 2017 11:45	1
HS17120041-04	4	01 Dec 2017 10:00			05 Dec 2017 11:45	1
HS17120041-05	5	01 Dec 2017 09:57			05 Dec 2017 11:45	1
Batch ID R306661	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS17120041-03	3	01 Dec 2017 09:30			06 Dec 2017 17:07	1

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R306693		**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil	
HS17120041-04	4	01 Dec 2017 10:00			07 Dec 2017 01:16	1
HS17120041-05	5	01 Dec 2017 09:57			07 Dec 2017 01:39	1
Batch ID R306722		**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil	
HS17120041-02	2	01 Dec 2017 09:45			07 Dec 2017 12:54	1

WorkOrder: HS17120041
InstrumentID: FID-11
Test Code: TX1005_S_REV3
Test Number: TX1005
Test Name: Texas TPH by TX1005

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	nC6 to nC12	TPH-1005-1	12	14	7.4	50
A	>nC12 to nC28	TPH-1005-2	12	13	9.8	50
A	>nC28 to nC35	TPH-1005-4	12	13	9.8	50
A	Total Petroleum Hydrocarbon	TPH	12	13	7.4	50
S	2-Fluorobiphenyl	321-60-8	0	0	0	0
S	Trifluoromethyl benzene	98-08-8	0	0	0	0

WorkOrder: HS17120041
InstrumentID: HG03
Test Code: HG_S_LOW
Test Number: SW7471A
Test Name: Mercury by SW7471B

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Mercury	7439-97-6	0.00167	0.00133	0.000470	0.00332

WorkOrder: HS17120041
InstrumentID: ICPMS04
Test Code: ICP_S_Low
Test Number: SW6020
Test Name: Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Aluminum	7429-90-5	0.400	1.06	0.232	1.00
A	Antimony	7440-36-0	0.250	0.296	0.0650	0.500
A	Arsenic	7440-38-2	0.200	0.230	0.0700	0.500
A	Barium	7440-39-3	0.100	0.105	0.0300	0.500
A	Beryllium	7440-41-7	0.100	0.0977	0.0210	0.500
A	Boron	7440-42-8	1.50	1.80	0.770	2.50
A	Cadmium	7440-43-9	0.100	0.105	0.0270	0.500
A	Chromium	7440-47-3	0.200	0.227	0.0230	0.500
A	Cobalt	7440-48-4	0.100	0.110	0.0150	0.500
A	Copper	7440-50-8	0.200	0.224	0.0380	0.200
A	Iron	7439-89-6	20.0	24.1	1.83	50.0
A	Lead	7439-92-1	0.100	0.0976	0.0130	0.500
A	Manganese	7439-96-5	0.200	0.242	0.0430	0.500
A	Selenium	7782-49-2	0.200	0.256	0.0910	0.500
A	Silver	7440-22-4	0.100	0.0986	0.0150	0.500
A	Strontium	7440-24-6	0.100	0.106	0.220	0.500
A	Thallium	7440-28-0	0.100	0.108	0.223	0.500
A	Tin	7440-31-5	0.200	0.228	0.0640	0.500
A	Titanium	7440-32-6	0.200	0.212	0.0400	0.500
A	Vanadium	7440-62-2	0.250	0.278	0.0750	0.500
A	Zinc	7440-66-6	0.250	0.514	0.170	0.500

WorkOrder: HS17120041
InstrumentID: ICPMS05
Test Code: ICP_S_Low
Test Number: SW6020
Test Name: Metals by SW6020A

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Aluminum	7429-90-5	0.500	0.771	0.232	1.00
A	Barium	7440-39-3	0.100	0.109	0.0300	0.500

WorkOrder: HS17120041
InstrumentID: VOA5
Test Code: 8260_S
Test Number: SW8260
Test Name: Volatiles by SW8260C

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Benzene	71-43-2	0.0012	0.0019	0.00050	0.0050
A	Ethylbenzene	100-41-4	0.0012	0.0018	0.00070	0.0050
A	Toluene	108-88-3	0.0012	0.0020	0.00060	0.0050
A	Xylenes, Total	1330-20-7	0.0038	0.0055	0.0010	0.0050
S	1,2-Dichloroethane-d4	17060-07-0	0	0	0	0
S	4-Bromofluorobenzene	460-00-4	0	0	0	0
S	Dibromofluoromethane	1868-53-7	0	0	0	0
S	Toluene-d8	2037-26-5	0	0	0	0

WorkOrder: HS17120041
InstrumentID: ICS3K2
Test Code: 9056_S
Test Number: SW9056
Test Name: Anions by SW9056A

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Fluoride	16984-48-8	1.00	1.40	0.300	1.00

WorkOrder: HS17120041
InstrumentID: Balance1
Test Code: MOIST_SW3550
Test Number: SW3550
Test Name: Moisture

METHOD DETECTION / REPORTING LIMITS

Matrix: Solid **Units:** wt%

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Percent Moisture	MOIST	0.0100	0.0100	0.0100	0.0100

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122857 **Instrument: FID-11** **Method: TX1005**

MBLK Sample ID: **MBLK-122857** Units: **mg/Kg** Analysis Date: **04-Dec-2017 18:46**
Client ID: Run ID: **FID-11_306748** SeqNo: **4340909** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	U	50								
>nC12 to nC28	U	50								
>nC28 to nC35	U	50								
Total Petroleum Hydrocarbon	U	50								
Surr: 2-Fluorobiphenyl	*25.94*	*0*	*25*	*0*	*104*	*70 - 130*				
Surr: Trifluoromethyl benzene	*22.51*	*0*	*25*	*0*	*90.0*	*70 - 130*				

LCS Sample ID: **LCS-122857** Units: **mg/Kg** Analysis Date: **04-Dec-2017 19:15**
Client ID: Run ID: **FID-11_306748** SeqNo: **4340910** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	236.1	50	250	0	94.5	75 - 125				
>nC12 to nC28	213.1	50	250	0	85.2	75 - 125				
Surr: 2-Fluorobiphenyl	*30.09*	*0*	*25*	*0*	*120*	*70 - 130*				
Surr: Trifluoromethyl benzene	*21.13*	*0*	*25*	*0*	*84.5*	*70 - 130*				

LCSD Sample ID: **LCSD-122857** Units: **mg/Kg** Analysis Date: **04-Dec-2017 19:43**
Client ID: Run ID: **FID-11_306748** SeqNo: **4340911** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	230.7	50	250	0	92.3	75 - 125	236.1	2.33	20	
>nC12 to nC28	204.8	50	250	0	81.9	75 - 125	213.1	3.98	20	
Surr: 2-Fluorobiphenyl	*28.92*	*0*	*25*	*0*	*116*	*70 - 130*	*30.09*	*3.97*	*20*	
Surr: Trifluoromethyl benzene	*20.19*	*0*	*25*	*0*	*80.8*	*70 - 130*	*21.13*	*4.54*	*20*	

MS Sample ID: **HS17120028-03MS** Units: **mg/Kg** Analysis Date: **04-Dec-2017 20:41**
Client ID: Run ID: **FID-11_306748** SeqNo: **4340913** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	196.6	39	193.1	0	102	75 - 125				
>nC12 to nC28	171.1	39	193.1	0	88.6	75 - 125				
Surr: 2-Fluorobiphenyl	*18.95*	*0*	*19.31*	*0*	*98.2*	*70 - 130*				
Surr: Trifluoromethyl benzene	*15.93*	*0*	*19.31*	*0*	*82.5*	*70 - 130*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122857 **Instrument: FID-11** **Method: TX1005**

MSD Sample ID: **HS17120028-03MSD** Units: **mg/Kg** Analysis Date: **04-Dec-2017 21:09**
Client ID: Run ID: **FID-11_306748** SeqNo: **4340914** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	186.4	38	191	0	97.6	75 - 125	196.6	5.33	20	
>nC12 to nC28	165.9	38	191	0	86.9	75 - 125	171.1	3.05	20	
Surr: 2-Fluorobiphenyl	*18.16*	*0*	*19.1*	*0*	*95.1*	*70 - 130*	*18.95*	*4.26*	*20*	
Surr: Trifluoromethyl benzene	*15.29*	*0*	*19.1*	*0*	*80.1*	*70 - 130*	*15.93*	*4.05*	*20*	

The following samples were analyzed in this batch: HS17120041-01 HS17120041-02 HS17120041-03 HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

MBLK Sample ID: **MBLK-122824** Units: **mg/Kg** Analysis Date: **08-Dec-2017 13:33**
Client ID: Run ID: **ICPMS05_306778** SeqNo: **4342360** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.3205	1.00								J
Boron	U	2.50								
Tin	U	0.500								

MBLK Sample ID: **MBLK-122824** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:08**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340815** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.152	0.500								J
Arsenic	U	0.500								
Barium	U	0.500								
Beryllium	U	0.500								
Cadmium	U	0.500								
Chromium	0.0533	0.500								J
Cobalt	U	0.500								
Copper	U	0.200								
Iron	U	50.0								
Lead	U	0.500								
Manganese	U	0.500								
Selenium	U	0.500								
Silver	U	0.500								
Strontium	U	0.500								
Thallium	U	0.500								
Titanium	U	0.500								
Vanadium	U	0.500								
Zinc	0.2227	0.500								J

LCS Sample ID: **LCS-122824** Units: **mg/Kg** Analysis Date: **08-Dec-2017 13:35**
Client ID: Run ID: **ICPMS05_306778** SeqNo: **4342361** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	56.16	1.00	60	0	93.6	80 - 120				
Boron	52.15	2.50	50	0	104	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

LCS Sample ID: **LCS-122824** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:10**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340816** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	9.233	0.500	10	0	92.3	80 - 120				
Arsenic	8.937	0.500	10	0	89.4	80 - 120				
Barium	8.663	0.500	10	0	86.6	80 - 120				
Beryllium	8.164	0.500	10	0	81.6	80 - 120				
Cadmium	8.772	0.500	10	0	87.7	80 - 120				
Chromium	8.999	0.500	10	0	90.0	80 - 120				
Cobalt	9.064	0.500	10	0	90.6	80 - 120				
Copper	8.815	0.200	10	0	88.2	80 - 120				
Iron	878.2	50.0	1000	0	87.8	80 - 120				
Lead	8.429	0.500	10	0	84.3	80 - 120				
Manganese	8.686	0.500	10	0	86.9	80 - 120				
Selenium	8.676	0.500	10	0	86.8	80 - 120				
Silver	8.727	0.500	10	0	87.3	80 - 120				
Strontium	8.553	0.500	10	0	85.5	80 - 120				
Thallium	8.779	0.500	10	0	87.8	80 - 120				
Tin	9.656	0.500	10	0	96.6	80 - 120				
Titanium	17.62	0.500	20	0	88.1	80 - 120				
Vanadium	8.61	0.500	10	0	86.1	80 - 120				
Zinc	8.89	0.500	10	0	88.9	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

MS Sample ID: **HS17111469-10MS** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:25**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340823** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	10340	0.967	58.03	8118	3830	75 - 125				SEO
Antimony	4.954	0.484	9.671	0.1756	49.4	75 - 125				S
Arsenic	13.1	0.484	9.671	3.676	97.5	75 - 125				
Barium	120.7	0.484	9.671	143.9	-240	75 - 125				SO
Beryllium	8.944	0.484	9.671	0.549	86.8	75 - 125				
Boron	51.66	2.42	48.36	7.412	91.5	75 - 125				
Cadmium	9.712	0.484	9.671	0.302	97.3	75 - 125				
Chromium	23.61	0.484	9.671	10.72	133	75 - 125				S
Cobalt	13.54	0.484	9.671	4.259	96.0	75 - 125				
Copper	20.12	0.193	9.671	8.294	122	75 - 125				
Iron	8503	48.4	967.1	7718	81.1	75 - 125				O
Lead	41.85	0.484	9.671	41.58	2.81	75 - 125				SO
Manganese	128.4	0.484	9.671	112	170	75 - 125				SO
Selenium	9.248	0.484	9.671	0.6264	89.1	75 - 125				
Silver	9.233	0.484	9.671	0.055	94.9	75 - 125				
Strontium	35.91	0.484	9.671	18.59	179	75 - 125				S
Thallium	9.309	0.484	9.671	0	96.3	75 - 125				
Tin	11.64	0.484	9.671	2.956	89.8	75 - 125				
Titanium	121.4	0.484	19.34	22.45	511	75 - 125				S
Vanadium	31.57	0.484	9.671	21.23	107	75 - 125				
Zinc	95.6	0.484	9.671	101.1	-56.6	75 - 125				SO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

MSD Sample ID: **HS17111469-10MSD** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:27**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340824** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	8697	0.946	56.78	8118	1020	75 - 125	10340	17.2	20	SEO
Antimony	5.295	0.473	9.463	0.1756	54.1	75 - 125	4.954	6.67	20	S
Arsenic	13.2	0.473	9.463	3.676	101	75 - 125	13.1	0.729	20	
Barium	91.38	0.473	9.463	143.9	-555	75 - 125	120.7	27.7	20	SRO
Beryllium	8.579	0.473	9.463	0.549	84.9	75 - 125	8.944	4.16	20	
Boron	54.64	2.37	47.31	7.412	99.8	75 - 125	51.66	5.61	20	
Cadmium	9.738	0.473	9.463	0.302	99.7	75 - 125	9.712	0.263	20	
Chromium	32.46	0.473	9.463	10.72	230	75 - 125	23.61	31.6	20	SR
Cobalt	11.97	0.473	9.463	4.259	81.5	75 - 125	13.54	12.3	20	
Copper	17.48	0.189	9.463	8.294	97.0	75 - 125	20.12	14.1	20	
Iron	7657	47.3	946.3	7718	-6.46	75 - 125	8503	10.5	20	SO
Lead	37.66	0.473	9.463	41.58	-41.4	75 - 125	41.85	10.5	20	SO
Manganese	156.3	0.473	9.463	112	469	75 - 125	128.4	19.6	20	SO
Selenium	9.572	0.473	9.463	0.6264	94.5	75 - 125	9.248	3.44	20	
Silver	9.089	0.473	9.463	0.055	95.5	75 - 125	9.233	1.57	20	
Strontium	54.25	0.473	9.463	18.59	377	75 - 125	35.91	40.7	20	SR
Thallium	9.165	0.473	9.463	0	96.9	75 - 125	9.309	1.56	20	
Tin	11.18	0.473	9.463	2.956	86.9	75 - 125	11.64	4.07	20	
Titanium	198.5	0.473	18.93	22.45	930	75 - 125	121.4	48.2	20	SRE
Vanadium	29.27	0.473	9.463	21.23	84.9	75 - 125	31.57	7.55	20	
Zinc	101.4	0.473	9.463	101.1	3.21	75 - 125	95.6	5.87	20	SO

PDS Sample ID: **HS17111469-10PDS** Units: **mg/Kg** Analysis Date: **08-Dec-2017 12:33**
Client ID: Run ID: **ICPMS04_306781** SeqNo: **4342210** PrepDate: **01-Dec-2017** DF: **100**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	8265	94.2	941.8	7233	110	75 - 125				O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

PDS Sample ID: **HS17111469-10PDS** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:29**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340825** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	8.867	0.471	9.418	0.1756	92.3	75 - 125				
Arsenic	12.76	0.471	9.418	3.676	96.4	75 - 125				
Barium	154.4	0.471	9.418	143.9	111	75 - 125				O
Beryllium	9.35	0.471	9.418	0.549	93.4	75 - 125				
Cadmium	9.221	0.471	9.418	0.302	94.7	75 - 125				
Chromium	19.45	0.471	9.418	10.72	92.7	75 - 125				
Cobalt	12.94	0.471	9.418	4.259	92.2	75 - 125				
Copper	16.9	0.188	9.418	8.294	91.4	75 - 125				
Iron	8509	47.1	941.8	7718	83.9	75 - 125				O
Lead	49.7	0.471	9.418	41.58	86.2	75 - 125				O
Manganese	119	0.471	9.418	112	74.0	75 - 125				SO
Selenium	9.964	0.471	9.418	0.6264	99.1	75 - 125				
Silver	8.906	0.471	9.418	0.055	94.0	75 - 125				
Thallium	8.895	0.471	9.418	0	94.4	75 - 125				
Vanadium	29.81	0.471	9.418	21.23	91.1	75 - 125				
Zinc	108.7	0.471	9.418	101.1	81.0	75 - 125				O

PDS Sample ID: **HS17111469-10PDS** Units: **mg/Kg** Analysis Date: **08-Dec-2017 12:53**
Client ID: Run ID: **ICPMS04_306781** SeqNo: **4342219** PrepDate: **01-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	98.62	2.35	94.18	7.412	96.8	75 - 125				
Strontium	26.53	0.471	9.418	18.59	84.4	75 - 125				
Tin	11.37	0.471	9.418	2.956	89.3	75 - 125				
Titanium	37.89	0.471	18.84	22.45	82.0	75 - 125				

SD Sample ID: **HS17111469-10SD** Units: **mg/Kg** Analysis Date: **08-Dec-2017 12:31**
Client ID: Run ID: **ICPMS04_306781** SeqNo: **4342209** PrepDate: **01-Dec-2017** DF: **500**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	7134	471					7233	1.36	10	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122824 **Instrument: ICPMS05** **Method: SW6020**

SD Sample ID: **HS17111469-10SD** Units: **mg/Kg** Analysis Date: **07-Dec-2017 15:23**
Client ID: Run ID: **ICPMS04_306700** SeqNo: **4340822** PrepDate: **01-Dec-2017** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	U	2.35					0.1756	0	10	
Arsenic	3.923	2.35					3.676	6.73	10	
Barium	142.3	2.35					143.9	1.15	10	
Beryllium	0.5454	2.35					0.549	0	10	J
Boron	11.63	11.8					7.412	0	10	J
Cadmium	0.3358	2.35					0.302	0	10	J
Chromium	11.05	2.35					10.72	3.04	10	
Cobalt	4.359	2.35					4.259	2.36	10	
Copper	8.196	0.942					8.294	1.18	10	
Iron	7991	235					7718	3.53	10	
Lead	41.1	2.35					41.58	1.16	10	
Manganese	114.9	2.35					112	2.58	10	
Selenium	0.6377	2.35					0.6264	0	10	J
Silver	U	2.35					0.055	0	10	
Strontium	18.2	2.35					18.59	2.08	10	
Thallium	U	2.35					0	0	10	
Tin	2.904	2.35					2.956	1.76	10	
Titanium	21.62	2.35					22.45	3.69	10	
Vanadium	21.7	2.35					21.23	2.18	10	
Zinc	104.9	2.35					101.1	3.79	10	

The following samples were analyzed in this batch: HS17120041-01 HS17120041-02 HS17120041-03 HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122983 **Instrument: HG03** **Method: SW7471A**

MBLK Sample ID: **MBLK-122983** Units: **ug/Kg** Analysis Date: **06-Dec-2017 18:19**
Client ID: Run ID: **HG03_306665** SeqNo: **4339858** PrepDate: **06-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	3.42								

LCS Sample ID: **LCS-122983** Units: **ug/Kg** Analysis Date: **06-Dec-2017 18:21**
Client ID: Run ID: **HG03_306665** SeqNo: **4339859** PrepDate: **06-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	343.1	3.40	341	0	101	80 - 120				

MS Sample ID: **HS17111092-01MS** Units: **ug/Kg** Analysis Date: **06-Dec-2017 18:24**
Client ID: Run ID: **HG03_306665** SeqNo: **4339861** PrepDate: **06-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	339.1	3.34	335.1	6.585	99.2	80 - 120				

MSD Sample ID: **HS17111092-01MSD** Units: **ug/Kg** Analysis Date: **06-Dec-2017 18:26**
Client ID: Run ID: **HG03_306665** SeqNo: **4339862** PrepDate: **06-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	322.3	3.41	342.1	6.585	92.3	80 - 120	339.1	5.1	20	

The following samples were analyzed in this batch: HS17120041-01 HS17120041-02 HS17120041-03 HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: R306624 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS1-120617** Units: **ug/Kg** Analysis Date: **06-Dec-2017 01:32**
Client ID: Run ID: **VOA5_306624** SeqNo: **4337218** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*50.16*	*0*	*50*	*0*	*100*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.81*	*0*	*50*	*0*	*99.6*	*83 - 120*				
Surr: Dibromofluoromethane	*48.8*	*0*	*50*	*0*	*97.6*	*80 - 119*				
Surr: Toluene-d8	*50.62*	*0*	*50*	*0*	*101*	*81 - 118*				

LCS Sample ID: **VLCSS1-120617** Units: **ug/Kg** Analysis Date: **06-Dec-2017 00:46**
Client ID: Run ID: **VOA5_306624** SeqNo: **4337217** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.63	5.0	50	0	91.3	75 - 124				
Ethylbenzene	44.72	5.0	50	0	89.4	70 - 123				
Toluene	42.14	5.0	50	0	84.3	76 - 122				
Xylenes, Total	128.5	5.0	150	0	85.7	77 - 128				
Surr: 1,2-Dichloroethane-d4	*52.26*	*0*	*50*	*0*	*105*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.56*	*0*	*50*	*0*	*99.1*	*83 - 120*				
Surr: Dibromofluoromethane	*49.56*	*0*	*50*	*0*	*99.1*	*80 - 119*				
Surr: Toluene-d8	*49.3*	*0*	*50*	*0*	*98.6*	*81 - 118*				

MS Sample ID: **HS17120195-01MS** Units: **ug/Kg** Analysis Date: **06-Dec-2017 07:50**
Client ID: Run ID: **VOA5_306624** SeqNo: **4337242** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	55.5	4.9	49	0	113	70 - 130				
Ethylbenzene	53.85	4.9	49	0	110	70 - 130				
Toluene	52.44	4.9	49	0	107	70 - 130				
Xylenes, Total	157.5	4.9	147	0	107	70 - 130				
Surr: 1,2-Dichloroethane-d4	*51.28*	*0*	*49*	*0*	*105*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*47.61*	*0*	*49*	*0*	*97.2*	*72 - 120*				
Surr: Dibromofluoromethane	*48.49*	*0*	*49*	*0*	*99.0*	*70 - 130*				
Surr: Toluene-d8	*48.19*	*0*	*49*	*0*	*98.3*	*82 - 121*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: **R306624** **Instrument:** **VOA5** **Method:** **SW8260**

MSD Sample ID: **HS17120195-01MSD** Units: **ug/Kg** Analysis Date: **06-Dec-2017 08:13**
Client ID: Run ID: **VOA5_306624** SeqNo: **4337243** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	55.1	4.9	49	0	112	70 - 130	55.5	0.724	30	
Ethylbenzene	54.64	4.9	49	0	112	70 - 130	53.85	1.45	30	
Toluene	54.12	4.9	49	0	110	70 - 130	52.44	3.14	30	
Xylenes, Total	160.4	4.9	147	0	109	70 - 130	157.5	1.8	30	
Surr: 1,2-Dichloroethane-d4	*50.73*	*0*	*49*	*0*	*104*	*70 - 126*	*51.28*	*1.07*	*30*	
Surr: 4-Bromofluorobenzene	*48.44*	*0*	*49*	*0*	*98.9*	*72 - 120*	*47.61*	*1.73*	*30*	
Surr: Dibromofluoromethane	*46.75*	*0*	*49*	*0*	*95.4*	*70 - 130*	*48.49*	*3.66*	*30*	
Surr: Toluene-d8	*48.55*	*0*	*49*	*0*	*99.1*	*82 - 121*	*48.19*	*0.736*	*30*	

The following samples were analyzed in this batch: HS17120041-01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: R306661 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS1-120617** Units: **ug/Kg** Analysis Date: **06-Dec-2017 13:14**
Client ID: Run ID: **VOA5_306661** SeqNo: **4338542** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*50.34*	*0*	*50*	*0*	*101*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*46.9*	*0*	*50*	*0*	*93.8*	*83 - 120*				
Surr: Dibromofluoromethane	*51.36*	*0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*48.57*	*0*	*50*	*0*	*97.1*	*81 - 118*				

LCS Sample ID: **VLCSS1-120617** Units: **ug/Kg** Analysis Date: **06-Dec-2017 12:27**
Client ID: Run ID: **VOA5_306661** SeqNo: **4338541** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.82	5.0	50	0	89.6	75 - 124				
Ethylbenzene	44.21	5.0	50	0	88.4	70 - 123				
Toluene	43.14	5.0	50	0	86.3	76 - 122				
Xylenes, Total	127.5	5.0	150	0	85.0	77 - 128				
Surr: 1,2-Dichloroethane-d4	*49.13*	*0*	*50*	*0*	*98.3*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.03*	*0*	*50*	*0*	*98.1*	*83 - 120*				
Surr: Dibromofluoromethane	*49.36*	*0*	*50*	*0*	*98.7*	*80 - 119*				
Surr: Toluene-d8	*48.48*	*0*	*50*	*0*	*97.0*	*81 - 118*				

MS Sample ID: **HS17120158-02MS** Units: **ug/Kg** Analysis Date: **06-Dec-2017 15:57**
Client ID: Run ID: **VOA5_306661** SeqNo: **4339505** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.08	5.0	49.5	0	95.1	70 - 130				
Ethylbenzene	47.69	5.0	49.5	0	96.4	70 - 130				
Toluene	45.97	5.0	49.5	0	92.9	70 - 130				
Xylenes, Total	138	5.0	148.5	0	93.0	70 - 130				
Surr: 1,2-Dichloroethane-d4	*53.21*	*0*	*49.5*	*0*	*107*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*50.71*	*0*	*49.5*	*0*	*102*	*72 - 120*				
Surr: Dibromofluoromethane	*48.93*	*0*	*49.5*	*0*	*98.9*	*70 - 130*				
Surr: Toluene-d8	*48.55*	*0*	*49.5*	*0*	*98.1*	*82 - 121*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: **R306661** **Instrument:** **VOA5** **Method:** **SW8260**

MSD Sample ID: **HS17120158-02MSD** Units: **ug/Kg** Analysis Date: **06-Dec-2017 16:20**
Client ID: Run ID: **VOA5_306661** SeqNo: **4339506** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.02	5.0	50	0	100	70 - 130	47.08	6.05	30	
Ethylbenzene	50.31	5.0	50	0	101	70 - 130	47.69	5.34	30	
Toluene	48.57	5.0	50	0	97.1	70 - 130	45.97	5.52	30	
Xylenes, Total	148.4	5.0	150	0	98.9	70 - 130	138	7.24	30	
Surr: 1,2-Dichloroethane-d4	*53.76*	*0*	*50*	*0*	*108*	*70 - 126*	*53.21*	*1.03*	*30*	
Surr: 4-Bromofluorobenzene	*49.53*	*0*	*50*	*0*	*99.1*	*72 - 120*	*50.71*	*2.36*	*30*	
Surr: Dibromofluoromethane	*49.38*	*0*	*50*	*0*	*98.8*	*70 - 130*	*48.93*	*0.911*	*30*	
Surr: Toluene-d8	*49.68*	*0*	*50*	*0*	*99.4*	*82 - 121*	*48.55*	*2.3*	*30*	

The following samples were analyzed in this batch: HS17120041-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: R306693 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS1-120717** Units: **ug/Kg** Analysis Date: **07-Dec-2017 00:53**
Client ID: Run ID: **VOA5_306693** SeqNo: **4339481** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*49.88*	*0*	*50*	*0*	*99.8*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.67*	*0*	*50*	*0*	*99.3*	*83 - 120*				
Surr: Dibromofluoromethane	*50.05*	*0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*49.62*	*0*	*50*	*0*	*99.2*	*81 - 118*				

LCS Sample ID: **VLCSS1-120717** Units: **ug/Kg** Analysis Date: **06-Dec-2017 23:19**
Client ID: Run ID: **VOA5_306693** SeqNo: **4339480** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.4	5.0	50	0	90.8	75 - 124				
Ethylbenzene	42.17	5.0	50	0	84.3	70 - 123				
Toluene	41.53	5.0	50	0	83.1	76 - 122				
Xylenes, Total	124.4	5.0	150	0	82.9	77 - 128				
Surr: 1,2-Dichloroethane-d4	*52.83*	*0*	*50*	*0*	*106*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.48*	*0*	*50*	*0*	*99.0*	*83 - 120*				
Surr: Dibromofluoromethane	*50.5*	*0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*48.6*	*0*	*50*	*0*	*97.2*	*81 - 118*				

MS Sample ID: **HS17120069-01MS** Units: **ug/Kg** Analysis Date: **07-Dec-2017 09:02**
Client ID: Run ID: **VOA5_306693** SeqNo: **4339682** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.36	5.0	49.5	0	89.6	70 - 130				
Ethylbenzene	42.92	5.0	49.5	1.513	83.7	70 - 130				
Toluene	42.43	5.0	49.5	0	85.7	70 - 130				
Xylenes, Total	126.5	5.0	148.5	84.63	28.2	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*53.49*	*0*	*49.5*	*0*	*108*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49.98*	*0*	*49.5*	*0*	*101*	*72 - 120*				
Surr: Dibromofluoromethane	*49.88*	*0*	*49.5*	*0*	*101*	*70 - 130*				
Surr: Toluene-d8	*48.52*	*0*	*49.5*	*0*	*98.0*	*82 - 121*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: **R306693** **Instrument:** **VOA5** **Method:** **SW8260**

MSD Sample ID: **HS17120069-01MSD** Units: **ug/Kg** Analysis Date: **07-Dec-2017 09:25**
Client ID: Run ID: **VOA5_306693** SeqNo: **4339683** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.21	5.0	49.5	0	103	70 - 130	44.36	14.3	30	
Ethylbenzene	50.44	5.0	49.5	1.513	98.8	70 - 130	42.92	16.1	30	
Toluene	49.46	5.0	49.5	0	99.9	70 - 130	42.43	15.3	30	
Xylenes, Total	148.4	5.0	148.5	84.63	42.9	70 - 130	126.5	16	30	S
Surr: 1,2-Dichloroethane-d4	*53.72*	*0*	*49.5*	*0*	*109*	*70 - 126*	*53.49*	*0.424*	*30*	
Surr: 4-Bromofluorobenzene	*50.27*	*0*	*49.5*	*0*	*102*	*72 - 120*	*49.98*	*0.584*	*30*	
Surr: Dibromofluoromethane	*49.74*	*0*	*49.5*	*0*	*100*	*70 - 130*	*49.88*	*0.267*	*30*	
Surr: Toluene-d8	*48.78*	*0*	*49.5*	*0*	*98.6*	*82 - 121*	*48.52*	*0.544*	*30*	

The following samples were analyzed in this batch: HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: R306722 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS1-120717** Units: **ug/Kg** Analysis Date: **07-Dec-2017 12:08**
Client ID: Run ID: **VOA5_306722** SeqNo: **4340377** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	5.0								
Surr: 1,2-Dichloroethane-d4	*49.78*	*0*	*50*	*0*	*99.6*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.2*	*0*	*50*	*0*	*96.4*	*83 - 120*				
Surr: Dibromofluoromethane	*51.27*	*0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*49.4*	*0*	*50*	*0*	*98.8*	*81 - 118*				

LCS Sample ID: **VLCSS1-120717** Units: **ug/Kg** Analysis Date: **07-Dec-2017 11:21**
Client ID: Run ID: **VOA5_306722** SeqNo: **4340376** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	54.03	5.0	50	0	108	75 - 124				
Ethylbenzene	51.84	5.0	50	0	104	70 - 123				
Toluene	50.03	5.0	50	0	100	76 - 122				
Xylenes, Total	150	5.0	150	0	100	77 - 128				
Surr: 1,2-Dichloroethane-d4	*53.04*	*0*	*50*	*0*	*106*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*49.42*	*0*	*50*	*0*	*98.8*	*83 - 120*				
Surr: Dibromofluoromethane	*49.83*	*0*	*50*	*0*	*99.7*	*80 - 119*				
Surr: Toluene-d8	*48.58*	*0*	*50*	*0*	*97.2*	*81 - 118*				

MS Sample ID: **HS17120070-09MS** Units: **ug/Kg** Analysis Date: **07-Dec-2017 13:41**
Client ID: Run ID: **VOA5_306722** SeqNo: **4340502** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.72	5.0	49.5	0	94.4	70 - 130				
Ethylbenzene	46.13	5.0	49.5	0	93.2	70 - 130				
Toluene	45.6	5.0	49.5	0	92.1	70 - 130				
Xylenes, Total	129.3	5.0	148.5	0	87.1	70 - 130				
Surr: 1,2-Dichloroethane-d4	*55.13*	*0*	*49.5*	*0*	*111*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*50.91*	*0*	*49.5*	*0*	*103*	*72 - 120*				
Surr: Dibromofluoromethane	*50.79*	*0*	*49.5*	*0*	*103*	*70 - 130*				
Surr: Toluene-d8	*49.27*	*0*	*49.5*	*0*	*99.5*	*82 - 121*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: **R306722** **Instrument:** **VOA5** **Method:** **SW8260**

MSD Sample ID: **HS17120070-09MSD** Units: **ug/Kg** Analysis Date: **07-Dec-2017 14:04**
Client ID: Run ID: **VOA5_306722** SeqNo: **4340503** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.18	5.0	49.5	0	95.3	70 - 130	46.72	0.972	30	
Ethylbenzene	46.37	5.0	49.5	0	93.7	70 - 130	46.13	0.526	30	
Toluene	47.14	5.0	49.5	0	95.2	70 - 130	45.6	3.31	30	
Xylenes, Total	134.2	5.0	148.5	0	90.3	70 - 130	129.3	3.68	30	
Surr: 1,2-Dichloroethane-d4	*54.06*	*0*	*49.5*	*0*	*109*	*70 - 126*	*55.13*	*1.96*	*30*	
Surr: 4-Bromofluorobenzene	*50.47*	*0*	*49.5*	*0*	*102*	*72 - 120*	*50.91*	*0.876*	*30*	
Surr: Dibromofluoromethane	*51.26*	*0*	*49.5*	*0*	*104*	*70 - 130*	*50.79*	*0.908*	*30*	
Surr: Toluene-d8	*49.85*	*0*	*49.5*	*0*	*101*	*82 - 121*	*49.27*	*1.16*	*30*	

The following samples were analyzed in this batch: HS17120041-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: 122932 **Instrument: ICS3K2** **Method: SW9056**

MBLK Sample ID: **MBLK-122932** Units: **mg/Kg** Analysis Date: **04-Dec-2017 20:26**
Client ID: Run ID: **ICS3K2_306581** SeqNo: **4336121** PrepDate: **04-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	1.00								

LCS Sample ID: **LCS-122932** Units: **mg/Kg** Analysis Date: **04-Dec-2017 14:17**
Client ID: Run ID: **ICS3K2_306581** SeqNo: **4336105** PrepDate: **04-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	42.23	1.00	40	0	106	80 - 120				

LCSD Sample ID: **LCSD-122932** Units: **mg/Kg** Analysis Date: **04-Dec-2017 14:39**
Client ID: Run ID: **ICS3K2_306581** SeqNo: **4336106** PrepDate: **04-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	43.57	1.00	40	0	109	80 - 120	42.23	3.12	20	

MS Sample ID: **HS17120041-01MS** Units: **mg/Kg** Analysis Date: **04-Dec-2017 18:38**
Client ID: **1** Run ID: **ICS3K2_306581** SeqNo: **4336116** PrepDate: **04-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	26.57	0.993	19.87	4.242	112	80 - 120				

MSD Sample ID: **HS17120041-01MSD** Units: **mg/Kg** Analysis Date: **04-Dec-2017 18:59**
Client ID: **1** Run ID: **ICS3K2_306581** SeqNo: **4336117** PrepDate: **04-Dec-2017** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	26.47	0.992	19.83	4.242	112	80 - 120	26.57	0.403	20	

The following samples were analyzed in this batch: HS17120041-01 HS17120041-02 HS17120041-03 HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: HS17120041

QC BATCH REPORT

Batch ID: **R306646** **Instrument:** **Balance1** **Method:** **SW3550**

DUP Sample ID: **HS17120028-03DUP** Units: **wt%** Analysis Date: **05-Dec-2017 11:45**
Client ID: Run ID: **Balance1_306646** SeqNo: **4338121** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	4.96	0.0100					5.03	1.4	20	

The following samples were analyzed in this batch: HS17120041-01 HS17120041-02 HS17120041-03 HS17120041-04 HS17120041-05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: RSB Solutions, Inc.
Project: William Smalling, PC
WorkOrder: **HS17120041**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2017-088	31-Aug-2018
Texas	T104704231-17-19	30-Apr-2018

Sample Receipt Checklist

Client Name: RSB SOLUTIONS
Work Order: HS17120041

Date/Time Received: **01-Dec-2017 12:30**
Received by: **JRM**

Checklist completed by: *Cesar A. Lira* (eSignature) 1-Dec-2017 (Date)

Reviewed by: *Dane J. Wacasey* (eSignature) 5-Dec-2017 (Date)

Matrices: **Soil**

Carrier name: **Client**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
TX1005 solids received in hermetically sealed vials?	☑	☐	N/A ☐
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	4.6c/4.9c uc/c	IR11
Cooler(s)/Kit(s):	42645	
Date/Time sample(s) sent to storage:	12/1/2017 15:30	

	Yes	No	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☐	☐	N/A ☑
pH adjusted?	☐	☐	N/A ☑

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page _____ of _____

COC ID: 170264

HS17120041

RSB Solutions, Inc.
William Smalling, PC

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	William Smalling, PC	Project Name	William Smalling, PC
Work Order		Project Number	170817
Company Name	RSB Solutions, Inc.	Bill To Company	RSB Solutions, Inc.
Send Report To	Nirav Patel	Invoice Attn	Sachin Butala
Address	6001 Savoy Drive, Suite 110	Address	6001 Savoy Drive, Suite 110
City/State/Zip	Houston, TX 77036	City/State/Zip	Houston TX 77036
Phone	(832) 291-3473	Phone	(832) 291-3473
Fax		Fax	
e-Mail Address	Nirav@rsbenv.com	e-Mail Address	sachin@rsbenv.com

A	8260_S (*5035*/8260 BTEX)
B	TX1005_S_REV3 (5035/TX1005 TPH)
C	9056_S (9056 Fluoride)
D	ICP_S_Low (6020A - Total Metals (21))
E	HG_S_Low (7471 Mercury)
F	MOIST_SW3550 (moisture%)
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	1	12/1/17	9:15	Soil	8,9	7	X	X	X	X	X	X					
2	2	12/1/17	9:45	Soil			X	X	X	X	X	X					
3	3	12/1/17	9:30	Soil			X	X	X	X	X	X					
4	4	12/1/17	10:00	Soil			X	X	X	X	X	X					
5	5	12/1/17	9:57	Soil			X	X	X	X	X	X					
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: GURU

Shipment Method:

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
	12/1/17	12:30	
Relinquished by:	**Date:**	**Time:**	**Received by (Laboratory):**
	12/1/17	12:30	J. [illegible]
Logged by (Laboratory):	**Date:**	**Time:**	**Checked by (Laboratory):**

Notes: RSB General

Cooler ID	Cooler Temp.
42645	4.6
	1K11
	CF 0.3

QC Package: (Check One Box Below)

- ☒ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

RESUMES

SACHIN M. BUTALA, P.E.

RSB ENVIRONMENTAL

SUMMARY AND QUALIFICATIONS:

Technically proficient Licensed Engineer □ith strong academic and □ork credentials. Career□minded individual □ith dynamic e□perience contri□uting Environmental Engineering focused results across a diversity of □usinesses. Key strengths include□

- **Eleven plus years** of e□perience □ith Environmental Consultants and Engineering firms as an Environmental Engineer on various pro□ects performing **Environmental Litigation Support, Audits, permitting, Phase I ESAs and PCAs**.
- Perform environmental impact studies□air, noise, □ater, and soil pollution mitigation system design for Refinery, LNG, and various Petrochemical Pro□ects.
- Responsi□le for preparing various □ir Permits□Title V, NSR, P□R and maintaining them for Oil and Gas facilities onshore and offshore in Te□as, Florida and Louisiana

EDUCATION:

M□STER OF ENGINEERING IN **ENVIRONMETAL** — Decem□er □□□□
L□M□R □NIVERSITY — □E□□MONT, TX

□□CHELOR OF ENGINEERING IN **CIVIL** — May □□□□
□NIVERSITY OF P□NE — P□NE, INDI□

PROFESSIONAL EXPERIENCE:

ENVIRONMENTAL CONSULTANT — 2005– PRESENT
RSB ENVIRONMENTAL

- Prepare □□□ plus **Environmental Sites Assessments (ESAs) Property Conditions Assessments (PCAs)** and to determine the potential for lia□ility from environmental impairment utili□ing revie□s of State and Federal environmental record sources, physical setting sources, historical information, site reconnaissance, and intervie□s, per □STM Standards.
- E□perience has included the completion of □□ □STM E □□□□ Property Condition □ssessments □PC□s□and more than □□ □STM E □□□□ Phase □ Environmental Site □ssessments □ES□s□ Services have also included the a□ility to generate □STM E □□□6□□ Seismic Risk □ssessment Checklists. □ssignments have included pro□ects for leading financial institutions, Fannie Mae, Freddie Mac and the Department of Housing and □r□an Development □H□D□ □dditional specialties have included construction monitoring, □uilding code compliance surveys, anchor testing, roof system analyses and engineering design support. Relationships are maintained □ith professional organi□ations that include the Structural Engineers □ssociation of □ ashington State □SE□□ □, the □merican Institute of □rchitects □□I□□and the Construction Specifications Institute □CSI□

HSE MANAGER — 2007– 2012
KBR — HO□STON, TX

- Revie□ and finali□e **Due Diligence** reports prepared in the country to minimi□e corporate lia□ility and reduce potential e□posure to future litigations.
- Complete □STM □ased Property Condition □ssessments □PC□□, Phase □ Environmental Site □ssessments □ES□□and Construction Monitoring □CM□for the commercial real estate market.
- Primary responsi□ilities include commercial real estate site assessments and detailed engineering reports for properties that have included retail centers, office comple□es, hotels, assisted living facilities, industrial plants and multi□family housing communities.

PROJECT MANAGER — 2006–2007
C□MP DRESSER MCKEE, INC. — VERO □E□CH, FL

- Engineering analysis, design, permitting related to Landfills, □ ater and □ aste□ater facilities.
- Perform engineering analyses, grading plan, design□modeling pertaining to landfill and landfill gas systems

- Oversee operation and maintenance of Landfill gas collection and landfill gas to energy pro□ects.
- Perform Environmental Sites □ssessments to determine the potential for lia□ility from environmental impairment utili□ing revie□s of State and Federal environmental record sources, physical setting sources, historical information, site reconnaissance, and intervie□s, per □STM Standards.
- Preparation of □ ater □se Permit and □ ater Conservation Plan for St. Lucie County □tilities
- Prepared various Title V compliance reports for St. Lucie County and Martin County landfills□ Semi□□nnual Report, □nnual Operating Report, Statement of Compliance, Ma□or □ir Pollution Source □nnual Emissions Fee Form

ENVIRONMENTAL ENGINEER **2003 –2006**

S I GRO□P, LP □E□□MONT □ COLLEGE ST□TION, TX

- Provided Clean □ir □ct □C□□□ regulatory compliance services for metal manufacturing industry in □eaumont, Te□as. □naly□ed production data at the various plants and determined appropriate emission factors from availa□le Federal □□P□4□□ and metal industry trade associations.
- Calculated annual and hourly emissions for particulate, VOC□s, NO□, SO□, CO, and other appropriate parameters. Performed a regulatory compliance revie□ for all applica□le regulations □i.e. M□CT, NESH□P, etc.□
- Perform Phase II Environmental Site □ssessments to sample ground□ater and analy□e soils, sediments, surface □ater, and ground□ater.
- Prepare SPCC plans, S□ PPP application, NEP□ Compliance, □ST Closure, Remediation Design, Su□surface Investigation plans.
- Perform HON Compliance Sampling, Su□part FF Compliance Sampling, LD□R Field and Records □uditing, El Paso Method Monitoring, Cooling To□er Emissions Monitoring, Remediation Planning and Oversight.

COMPUTER SKILLS:

Soft□are Packages□ MS □ ord, □ccess, Po□erPoint and E□cel;

Design Tools□ □utoC□D□□□□, Micro station, HEC□R□S□HMS, GIS, and ST□□D□PRO, Pipe□□□□, L□NDGEM, HELP MODEL, PCST□□LE, □utoDesk Civil Series, VI□IO

CERTIFICATIONS AND TRAINING:

- Professional Engineer, Te□as, License No□□□□□4, □Decem□er □□□6□
- Engineer□In□Training, Te□as, License No□ 36□36, □□anuary □□□6□
- Landfill Gas Design Training□Landtec, Chicago, IL
- OSH□ 4□ HR. H□□□ OPER
- □utoDesk Land Development and 3D solid Training
- □merican Red Cross Standard First □id and CPR □□□ED Training

NIRAV PATEL

6□□□ Savoy Drive, Ste □□□ Houston, TX □□□36 ☎ □□3□.□□□.34□3 nirav□ rs□env.com

SUMMARY OF EXPERIENCE

Mr. Patel has performed both as an Environmental and Civil Engineer throughout his career in the construction industry. Mr. Patel has more than 5 years of success performing Phase 1 Environmental Site Assessments, Construction Monitoring, Property Condition Assessments, Multimedia Permitting and Compliance, Water/wastewater Plant Operations and Maintenance, Environmental Engineering and Design for various clients nationwide.

At RSB Environmental, Mr. Patel serves as Project Manager in Houston office and specializes in conducting Environmental Site Assessments, Property Condition Assessments, Environmental Compliance and Permitting.

EDUCATION:

MS in Environmental Studies **Lamar University, Texas**
December 2012

PROFESSIONAL EXPERIENCE:

- Technical project support to all Assessment Projects
  - Property Condition Assessments includes identifying deficiencies, providing overall professional judgment of a property's overall condition, and preparing cost estimates for repairs and projected replacement costs. He has performed these evaluations on a variety of property types that include multi-family, retail, office high-rise, warehouse, and industrial and facilities.
  - Plan and Cost Review Reports involve reviewing proposed construction plans and contracts to identify project risks and adequacy of the construction budgets. Construction monitoring site visits verifies that payment requests represent the work complete, and to inform the owner/lender of delays, changes in the work, and sufficient remaining funds. He has performed these evaluations for town homes, senior living, retail, and shopping center redevelopments.
  - Primary responsibilities include commercial real estate site assessments and detailed engineering reports for properties that have included retail centers, office complexes, hotels, assisted living facilities, industrial plants and multi-family housing communities. Experience has included the completion of over 800 ASTM E 2018 Property Condition Assessments (PCAs) and more than 600 ASTM E 1527 Phase 1 Environmental Site Assessments (ESAs).
  - Worked on projects for leading financial institutions, Fannie Mae, Freddie Mac and the Department of Housing and Urban Development (HUD). Additional specialties have included construction monitoring, building code compliance surveys, anchor testing, roof system analyses and engineering design support.

- Technical project support to all Environmental Compliance Projects

References available upon request

- Conduct Environmental Compliance Audits for various industries. The compliance audits were conducted to identify potential non-compliance issues with hazardous materials and waste handling, air emission compliance, wastewater compliance and other permitting requirements.
- Prepare and implement Storm Water Pollution Prevention Plan (SWPPP), Spill Prevention, Control and Countermeasure Plan (SPCC), Risk Management Plan (RMP), Waste Classification and Minimization Plan, Contingency Plan and Pollution Prevention Plan.
- Conduct Environmental Regulatory Applicability Analysis and application preparation (Toxic Release Inventory –SARA Title III, Tier I/II).

SKILLS:

- LEED Green □ssociate
- □utoC□D
- GIS □pplications
- Microsoft Office Soft□are □proficient in E□cel□

References available upon request

Laboratory Analysis Report

Total Number of Pages: 37

Job ID : 17120958

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
02-170351 / 7012 Banyan Houston, TX (TL00CWS)

Report To :	Client Name:	Air & Waste Engineering, Inc.	P.O.#.:	
	Attn:	Bill Smalling	Sample Collected By:	Bill Smalling
	Client Address:	P.O. Box 6211	Date Collected:	12/18/17
	City, State, Zip:	Sugarland, Texas, 77496		

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
1	Soil	17120958.01
2	Soil	17120958.02
3	Soil	17120958.03
4	Soil	17120958.04
5	Soil	17120958.05

Client Samples 1, 2, 3, 4, and 5 on this report renumbered to 6, 7, 8, 9, and 10, respectively to prevent confusion with ALS report sample numbers.

Released By: Shantall Carpenter

Title: Senior Project Manager

Date: 12/22/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

Date Received : 12/18/2017 13:45

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17120958

Date: 12/22/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

D1	Sample required dilution due to matrix effects.
J	Estimation. Below calibration range but above MDL.
M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference."The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
M3	The accuracy of the spike recovery value is reduced since the analyte concentraction in the sample is disproportionate to spike level. "The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
S1	Surrogate recovery is above control limit. Results may be biased high.
S4	Surrogate not available due to dilution of sample extract for quantification.
S8	Target compounds caused elevation of baseline. Surrogate may be biased high.
U	Undetected at SDL (Sample Detection Limit).

LABORATORY TEST RESULTS

Client Sample ID:	1	Date:	12/22/2017
A&B Job Sample ID:	17120958.01		
Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	12/18/2017 11:04
QC Batch ID:	Qb17121879	Date Received	12/18/2017 13:45
Prep Method:	SM 2540G	Date Prepared	12/18/2017 17:00
Prepared By:	Alomeda		
Prep Batch ID	PB17121842		
Analyst Initial	AL	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	21.3					----	----	%	1	12/18/17 17:30

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 1 **Renumbered to Sample ID No. 6** Date: 12/22/2017

A&B Job Sample ID: 17120958.01

Client Name: Air & Waste Engineering, Inc. Attn: Bill Smalling

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS)

Test Description:	**Total Metals**	Sample Matrix	Soil
Analytical Method:	SW-846 6010C	Date Collected	12/18/2017 11:04
QC Batch ID:	Qb17122178	Date Received	12/18/2017 13:45
Prep Method:	SW-846 3050B	Date Prepared	12/21/2017 09:05
Prepared By:	JYou		
Prep Batch ID	PB17122140		
Analyst Initial	GG	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7440-38-2	Arsenic	17.8		0.254	0.635	0.1	0.25	25	mg/Kg	2	12/21/17 16:08
7440-39-3	Barium	435		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13
7440-43-9	Cadmium	1.270		0.102	0.635	0.04	0.25	25	mg/Kg	2	12/21/17 16:08
7440-47-3	Chromium	46.5		0.254	0.635	0.1	0.25	25	mg/Kg	2	12/21/17 16:08
7440-50-8	Copper	412		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13
7439-92-1	Lead	188		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13
7439-95-5	Manganese	300		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13
7440-02-0	Nickel	97.5		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13
7782-49-2	Selenium	4.45		0.254	0.635	0.1	0.25	25	mg/Kg	2	12/21/17 16:08
7440-22-4	Silver	< 0.051	U	0.051	0.635	0.02	0.25	25	mg/Kg	2	12/21/17 16:08
7440-66-6	Zinc	1127		5.08	12.7	0.1	0.25	25	mg/Kg	40	12/21/17 16:13

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID:	1	**Renumbered to Sample ID No. 6**	Date: 12/22/2017
A&B Job Sample ID:	17120958.01		

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Total Metals - Mercury**	Sample Matrix	Soil
Analytical Method:	SW-846 7470A	Date Collected	12/18/2017 11:04
QC Batch ID:	Qb17122165	Date Received	12/18/2017 13:45
Prep Method:	SW-846 7470A	Date Prepared	12/21/2017 12:00
Prepared By:	BRena		
Prep Batch ID	PB17122129		
Analyst Initial	BRR	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-97-6	Mercury	0.278		0.006	0.025	0.001	0.004	0.2	mg/Kg	5	12/21/17 15:28

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Renumbered to Sample ID No. 6

Client Sample ID:	1	Date:	12/22/2017
A&B Job Sample ID:	17120958.01		

Client Name:	Air & Waste Engineering, Inc.	Attn:	Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Purgeable Aromatics**	Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	12/18/2017 11:04
QC Batch ID:	Qb17121933	Date Received	12/18/2017 13:45
Prep Method:	SW-846 5035A	Date Prepared	12/18/2017 15:00
Prepared By:	Jdongre		
Prep Batch ID	PB17121917		
Analyst Initial	JKD	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.016	U	0.016	0.257	0.00031	0.005	0.05	mg/Kg	40.5	12/19/17 15:48
108-88-3	Toluene	< 0.023	U	0.023	0.257	0.00044	0.005	0.05	mg/Kg	40.5	12/19/17 15:48
100-41-4	Ethylbenzene	0.151	J	0.023	0.257	0.00044	0.005	0.05	mg/Kg	40.5	12/19/17 15:48
108-38-3&106-4	m- & p-Xylenes	0.287	J	0.057	0.515	0.0011	0.010	0.10	mg/Kg	40.5	12/19/17 15:48
95-47-6	o-Xylene	0.385		0.021	0.257	0.00041	0.005	0.05	mg/Kg	40.5	12/19/17 15:48
1330-20-7	Xylenes	0.672	J	0.076	0.772	0.00148	0.015	0.15	mg/Kg	40.5	12/19/17 15:48
17060-07-0	1,2-Dichloroethane-d4	90.5					70	130	%	40.5	12/19/17 15:48
1868-53-7	Dibromofluoromethan	95.8					70	130	%	40.5	12/19/17 15:48
2037-26-5	Toluene-d8(surr)	86.9					70	130	%	40.5	12/19/17 15:48
460-00-4	p-Bromofluorobenzen	98.2					70	130	%	40.5	12/19/17 15:48

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Renumbered to Sample ID No. 6

Client Sample ID:	1	Date:	12/22/2017
A&B Job Sample ID:	17120958.01		

Client Name:	Air & Waste Engineering, Inc.	Attn:	Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	12/18/2017 11:04
QC Batch ID:	Qb17122028	Date Received	12/18/2017 13:45
Prep Method:	TX 1005	Date Prepared	12/18/2017 14:00
Prepared By:	LLe		
Prep Batch ID	PB17122017		
Analyst Initial	LL	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	<3011	D1,U	3011	3177	23.7	25	1000	mg/Kg	100	12/19/17 02:06
TPH-1005-2	>C12-C28	15492		2579	3177	20.3	25	1000	mg/Kg	100	12/19/17 02:06
TPH-1005-4	>C28-C35	7302		2249	3177	17.7	25	1000	mg/Kg	100	12/19/17 02:06
	Total C6-C35	22794					----	----	mg/Kg	100	12/19/17 02:06
111-85-3	1-Chlorooctane(surr)	N/A	S4				60	143	%	100	12/19/17 02:06
3386-33-2	Chlorooctadecane(sur	N/A	S4				60	150	%	100	12/19/17 02:06

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 2 **Renumbered to Sample ID No. 7**

A&B Job Sample ID: 17120958.02

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	12/18/2017 11:10
QC Batch ID:	Qb17121879	Date Received	12/18/2017 13:45
Prep Method:	SM 2540G	Date Prepared	12/18/2017 17:00
Prepared By:	Alomeda		
Prep Batch ID	PB17121842		
Analyst Initial	AL	% Moisture	16.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	16.1					----	----	%	1	12/18/17 17:30

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 2 **Renumbered to Sample ID No. 7**
A&B Job Sample ID: 17120958.02

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Purgeable Aromatics**	Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	12/18/2017 11:10
QC Batch ID:	Qb17121933	Date Received	12/18/2017 13:45
Prep Method:	SW-846 5035A	Date Prepared	12/18/2017 15:00
Prepared By:	Jdongre		
Prep Batch ID	PB17121917		
Analyst Initial	JKD	% Moisture	16.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.00016	U	0.00016	0.003	0.00031	0.005	0.05	mg/Kg	0.43	12/19/17 05:29
108-88-3	Toluene	< 0.00023	U	0.00023	0.003	0.00044	0.005	0.05	mg/Kg	0.43	12/19/17 05:29
100-41-4	Ethylbenzene	< 0.00023	U	0.00023	0.003	0.00044	0.005	0.05	mg/Kg	0.43	12/19/17 05:29
108-38-3&106-4	m- & p-Xylenes	< 0.00056	U	0.00056	0.005	0.0011	0.010	0.10	mg/Kg	0.43	12/19/17 05:29
95-47-6	o-Xylene	< 0.00021	U	0.00021	0.003	0.00041	0.005	0.05	mg/Kg	0.43	12/19/17 05:29
1330-20-7	Xylenes	< 0.00076	U	0.00076	0.008	0.00148	0.015	0.15	mg/Kg	0.43	12/19/17 05:29
17060-07-0	1,2-Dichloroethane-d4	124					70	130	%	0.43	12/19/17 05:29
1868-53-7	Dibromofluoromethan	128					70	130	%	0.43	12/19/17 05:29
2037-26-5	Toluene-d8(surr)	97.4					70	130	%	0.43	12/19/17 05:29
460-00-4	p-Bromofluorobenzen	99.3					70	130	%	0.43	12/19/17 05:29

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 2 **Renumbered to Sample ID No. 7**
A&B Job Sample ID: 17120958.02

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	12/18/2017 11:10
QC Batch ID:	Qb17122028	Date Received	12/18/2017 13:45
Prep Method:	TX 1005	Date Prepared	12/18/2017 14:00
Prepared By:	LLe		
Prep Batch ID	PB17122017		
Analyst Initial	LL	% Moisture	16.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 141	D1,U	141	149	23.7	25	1000	mg/Kg	5	12/19/17 14:47
TPH-1005-2	>C12-C28	468		121	149	20.3	25	1000	mg/Kg	5	12/19/17 14:47
TPH-1005-4	>C28-C35	681		105	149	17.7	25	1000	mg/Kg	5	12/19/17 14:47
	Total C6-C35	1149					----	----	mg/Kg	5	12/19/17 14:47
111-85-3	1-Chlorooctane(surr)	143	S8				60	143	%	5	12/19/17 14:47
3386-33-2	Chlorooctadecane(sur	182	S8				60	150	%	5	12/19/17 14:47

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 3 **Renumbered to Sample ID No. 8**
A&B Job Sample ID: 17120958.03

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	12/18/2017 11:18
QC Batch ID:	Qb17121879	Date Received	12/18/2017 13:45
Prep Method:	SM 2540G	Date Prepared	12/18/2017 17:00
Prepared By:	Alomeda		
Prep Batch ID	PB17121842		
Analyst Initial	AL	% Moisture	48.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	48.3					----	----	%	1	12/18/17 17:30

Soil results reported on dry weight basis

Laboratory Analysis Report

Total Number of Pages: 14

Job ID : 17120958

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
02-170351 / 7012 Banyan Houston, TX (TL00CWS)

Report To :	Client Name:	Air & Waste Engineering, Inc.	P.O.#.:	
	Attn:	Bill Smalling	Sample Collected By:	Bill Smalling
	Client Address:	P.O. Box 6211	Date Collected:	12/18/17
	City, State, Zip:	Sugarland, Texas, 77496		

A&B Labs has analyzed the following samples...

Client Sample ID 3	**Matrix**	**A&B Sample ID**
Renumbered to 8	Soil	17120958.03

Released By: Shantall Carpenter

Title: Senior Project Manager

Date: 1/8/2018

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

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Date Received : 12/18/2017 13:45

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17120958

Date: 1/8/2018

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
U	Undetected at SDL (Sample Detection Limit).

LABORATORY TEST RESULTS

Client Sample ID: 3 **Renumbered to Sample ID No. 8**
A&B Job Sample ID: 17120958.03

Date: 1/8/2018

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Total Metals**	Sample Matrix	Soil
Analytical Method:	SW-846 6010C	Date Collected	12/18/2017 11:18
QC Batch ID:	Qb18010460	Date Received	12/18/2017 13:45
Prep Method:	SW-846 3050B	Date Prepared	01/04/2018 13:00
Prepared By:	Mwissman		
Prep Batch ID	PB18010445		
Analyst Initial	CAS	% Moisture	48.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7440-38-2	Arsenic	49.5		3.87	9.67	0.1	0.25	125	mg/Kg	20	01/04/18 19:38
7440-39-3	Barium	565		3.87	9.67	0.1	0.25	125	mg/Kg	20	01/04/18 19:38
7440-43-9	Cadmium	23.4		1.55	9.67	0.04	0.25	125	mg/Kg	20	01/04/18 19:38
7440-47-3	Chromium	64.8		3.87	9.67	0.1	0.25	125	mg/Kg	20	01/04/18 19:38
7439-92-1	Lead	1077		3.87	9.67	0.1	0.25	125	mg/Kg	20	01/04/18 19:38
7782-49-2	Selenium	< 0.193	U	0.193	0.484	0.1	0.25	125	mg/Kg	1	01/04/18 19:33
7440-22-4	Silver	0.348	J	0.039	0.484	0.02	0.25	125	mg/Kg	1	01/04/18 19:33

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 01/08/18

Description : Total Metals **Method : SW-846 6010C** **Reporting Units : mg/Kg**

QC Batch ID : Qb18010460 **Created Date :** 01/04/18 **Created By :** csmith

Samples in This QC Batch : 17120958.03

Prep Batch ID	Method	Function Type	Prep Method	Date Time Prepared	Date Time Received	Date Time Collected	Prepared By
PB18010445	SW-846 6010C	Digestion	SW-846 3050B	01/04/18 13:00	12/18/17 13:45	12/18/17 00:00	Mwissman

QCType	Parameter	CAS #	Result	Units	DF	RptLimit		Qual
Method Blank	Arsenic	7440-38-2	BRL	mg/Kg	1	0.5		
Method Blank	Barium	7440-39-3	BRL	mg/Kg	1	0.5		
Method Blank	Cadmium	7440-43-9	BRL	mg/Kg	1	0.5		
Method Blank	Chromium	7440-47-3	BRL	mg/Kg	1	0.5		
Method Blank	Lead	7439-92-1	BRL	mg/Kg	1	0.5		
Method Blank	Selenium	7782-49-2	BRL	mg/Kg	1	0.5		
Method Blank	Silver	7440-22-4	BRL	mg/Kg	1	0.5		

QCType	Parameter	Result	Units	Spike Amount	Spike Units	% Rec	RPD	%Rec CtrlLimit	RPD CtrlLimit	Q	QCSampleID	QC Result
LCS	Arsenic	23.2	mg/Kg	25	mg/Kg	92.8		80-120	20			
LCS	Barium	25.0	mg/Kg	25	mg/Kg	100		80-120	20			
LCS	Cadmium	23.0	mg/Kg	25	mg/Kg	92		80-120	20			
LCS	Chromium	24.8	mg/Kg	25	mg/Kg	99.2		80-120	20			
LCS	Lead	25.4	mg/Kg	25	mg/Kg	102		80-120	20			
LCS	Selenium	23.7	mg/Kg	25	mg/Kg	94.8		80-120	20			
LCS	Silver	22.4	mg/Kg	25	mg/Kg	89.6		80-120	20			
LCSD	Arsenic	20.2	mg/Kg	25	mg/Kg	80.8	13.8	80-120	20			
LCSD	Barium	21.4	mg/Kg	25	mg/Kg	85.6	15.5	80-120	20			
LCSD	Cadmium	20.1	mg/Kg	25	mg/Kg	80.4	13.5	80-120	20			
LCSD	Chromium	21.3	mg/Kg	25	mg/Kg	85.2	15.2	80-120	20			
LCSD	Lead	22.2	mg/Kg	25	mg/Kg	88.8	13.4	80-120	20			
LCSD	Selenium	20.7	mg/Kg	25	mg/Kg	82.8	13.5	80-120	20			
LCSD	Silver	19.5	mg/Kg	25	mg/Kg	78	13.8	80-120	20	L1		
MS	Arsenic	24.8	mg/Kg	25	mg/Kg	85.6		70-130	20		18010134.01	3.4
MS	Barium	631.0	mg/Kg	25	mg/Kg	112		70-130	20		18010134.01	603.0
MS	Cadmium	21.9	mg/Kg	25	mg/Kg	87.6		70-130	20		18010134.01	BRL
MS	Chromium	70.2	mg/Kg	25	mg/Kg	126		70-130	20		18010134.01	38.8
MS	Lead	27.1	mg/Kg	25	mg/Kg	89		70-130	20		18010134.01	4.9
MS	Selenium	21.5	mg/Kg	25	mg/Kg	86		70-130	20		18010134.01	BRL
MS	Silver	21.0	mg/Kg	25	mg/Kg	84		70-130	20		18010134.01	BRL
PDS	Arsenic	123.0	mg/Kg	125	mg/Kg	95.7		80-120			18010134.01	3.4
PDS	Barium	651.0	mg/Kg	125	mg/Kg	38.4		80-120			18010134.01	603.0
PDS	Cadmium	116.0	mg/Kg	125	mg/Kg	92.8		80-120			18010134.01	BRL
PDS	Chromium	162.0	mg/Kg	125	mg/Kg	98.6		80-120			18010134.01	38.8
PDS	Lead	110.0	mg/Kg	125	mg/Kg	84.1		80-120			18010134.01	4.9
PDS	Selenium	121.0	mg/Kg	125	mg/Kg	96.8		80-120			18010134.01	BRL
PDS	Silver	117.0	mg/Kg	125	mg/Kg	93.6		80-120			18010134.01	BRL
Serial Dilution	Arsenic	3.9	mg/Kg		mg/Kg		14.2		10		18010134.01	3.4

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958

Date : 01/08/18

Description : Total Metals **Method : SW-846 6010C** **Reporting Units : mg/Kg**

QC Batch ID : Qb18010460 **Created Date :** 01/04/18 **Created By :** csmith

Samples in This QC Batch : 17120958.03

QCType	Parameter	Result	Units	Spike Amount	Spike Units	% Rec	RPD	%Rec CtrlLimit	RPD CtrlLimit	Q	QCSampleID	QC Result
Serial Dilution	Barium	555.0	mg/Kg		mg/Kg		8.3		10		18010134.01	603.0
Serial Dilution	Cadmium	0.2	mg/Kg		mg/Kg		200		10		18010134.01	BRL
Serial Dilution	Chromium	53.9	mg/Kg		mg/Kg		32.6		10		18010134.01	38.8
Serial Dilution	Lead	6.4	mg/Kg		mg/Kg		27.6		10		18010134.01	4.9
Serial Dilution	Selenium	BRL	mg/Kg		mg/Kg				10		18010134.01	BRL
Serial Dilution	Silver	0.0	mg/Kg		mg/Kg		200		10		18010134.01	BRL

Refer to the Definition page for terms.

A.& B Labs *Chain of Custody*

The Chain of Custody is a Legal Document

Page _____ of _____

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 17-20958

5. Project # 02-170351

REPORT TO:

1. Company: Air+Waste Engineering Inc.
Address: PO Box 16211
Sugar Land Tx 77496
Contact: Bill Smalling
Phone:
Fax: ☐
E-mail: ☑ bsmalling@airandwasteengineering.com

INVOICE TO:

2. Company:
Address:
Contact:
Phone:
Fax: ☐
E-mail: ☐

→ Same as "Report to"

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☐ Other:
☐ 2 Days*
☑ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location
7012 Banyan
Houston, Tx (TL00CWS)

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☐ EDD

8. Sampler's Name & Company (PLEASE PRINT)
Bill Smalling
Air+Waste Engineering Inc.

Sampler's Signature & Date
Dec. 18, 2017

13. No. of Containers
14. Containers*
15. Preservatives**
16. PH-Lab Only
17. Analyses/Methods

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	Time 24hr	11. Comp.	Grab	12. Matrix Water	Soil	Sludge	Oil	Drinking Water	Air	Other	8260-8260 BTEX	TX1005-8-REV3 (5035)	TX1005 TPH	MOIST-SW3550 (Moist %)	Haz Metals, 12	18. REMARKS
01AG	1	12/18/17	1104				X						✓	✓	✓	✓		
02AG	2	12/18/17	1110				X						✓	✓	✓			
03AG	3	12/18/17	1118				X						✓	✓	✓			
04AG	4	12/18/17	1125				X						✓	✓	✓			
05AG	5	12/18/17	1130				X						✓	✓	✓			

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1 Bill Smalling / Bill Smalling	Dec. 18, 2017	1345		12/18/17	13:45
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 2.7 + 0.7 = 3.4 °C
Thermometer ID 111601055
Intact: Y or N Initials S-O

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other _____

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID : **17120958**	Date Received : **12/18/2017**	Time Received : **1:45PM**
Client Name : **Air & Waste Engineering, Inc.**		
Temperature : **2.7+0.7cf=3.4°C**	Sample pH : **n/a**	
Thermometer ID : **111601055**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** Water ☐ Soil ☑ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Received 6 pre-weighed vials and 1 bulk jar per sample. -ANH 12-18-17. TCLP RCRA 8 added to Sample 03 on 3BD TAT per phone conversation with Bill Smalling. AS 01/02/2018 Only 5g of sample remains - insufficient volume for TCLP 8 RCRA Metals. Per client, lab will run Total RCRA 7 Metals on sample .03 instead. 1/3/18 SGC

Received by : Sortega

Check in by/date : AHall / 12/18/2017

DCS Summary

A&B JobID 17120958
Air & Waste Engineering, Inc.
02-170351 / 7012 Banyan Houston, TX
(TL00CWS)
Sample Collected 12/18/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6010C	Arsenic	1.721	mg/Kg	1	1	mg/Kg	172	09/28/2017	BRena
DCS	SW-846 6010C	Barium	1.244	mg/Kg	1	1	mg/Kg	124	09/28/2017	BRena
DCS	SW-846 6010C	Cadmium	1.017	mg/Kg	1	1	mg/Kg	102	09/28/2017	BRena
DCS	SW-846 6010C	Chromium	1.061	mg/Kg	1	1	mg/Kg	106	09/28/2017	BRena
DCS	SW-846 6010C	Lead	1.074	mg/Kg	1	1	mg/Kg	107	09/28/2017	BRena
DCS	SW-846 6010C	Selenium	2.126	mg/Kg	1	1	mg/Kg	213	09/28/2017	BRena
DCS	SW-846 6010C	Silver	0.959	mg/Kg	1	1	mg/Kg	95.9	09/28/2017	BRena

Laboratory Data Package Cover Page

This data package is for Job No. 17120958 and laboratory batch no(s).
Qb18010460 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

☒ R1 - Field chain-of-custody documentation;

☒ R2 - Sample identification cross-reference;

☒ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

☒ R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

☒ R5 - Test reports/summary forms for blank samples;

☒ R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

c. LCS spiking amounts,

d. Calculated %R for each analyte, and

e. The laboratory's LCS QC limits.

☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

f. Samples associated with the MS/MSD clearly identified,

g. MS/MSD spiking amounts,

h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

i. Calculated %Rs and relative percent differences (RPDs), and

j. The laboratory's MS/MSD QC limits

☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

k. The amount of analyte measured in the duplicate,

l. The calculated RPD, and

m. The laboratory's QC limits for analytical duplicates.

☒ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

☒ R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Shantall Carpenter	Shantall Carpenter	Senior Project Manager	01/08/2018

Laboratory Review Checklist: Reportable Data

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS) Reviewed By: Scarpenter
A&B Job ID: 17120958 Date Reviewed: 01/08/2018
Prep Batch Number(s): Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178,Qb18010460

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?	X				
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Was % moisture (or solids) reported for all samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035	X				
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?			X		
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6/4
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?	X				
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	**OI**	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

S1	**OI**	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	**OI**	**INITIAL AND CONTINUING CALIBRATION VERIFICATION (ICCV AND CCV) AND CONTINUING CALIBRATION BLANK (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	**O**	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	**O**	**INTERNAL STANDARDS (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	**OI**	**Raw data (NELAC Section 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	**OI**	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?			X		
S7	**OI**	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	**OI**	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?	X				
S9	**OI**	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits	X				
S10	**OI**	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	**OI**	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	**OI**	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS) Reviewed By: Scarpenter
A&B Job ID: 17120958 Date Reviewed: 01/08/2018
Prep Batch Number(s): Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178,Qb18010460

#	A	Description	Yes	No	NA	NR	ER#
S13	**OI**	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	**OI**	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	**OI**	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	**OI**	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION
	L1 - Associated LCSD recovery was above acceptance limits for flagged analyte. Bias may be high
R6/4	
	(L1)Silver --- --- Qb18010460 Metals

O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

NR = Not Reviewed;

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

LABORATORY TEST RESULTS

Client Sample ID: 3 **Renumbered to Sample ID No. 8**
A&B Job Sample ID: 17120958.03

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Purgeable Aromatics**	Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	12/18/2017 11:18
QC Batch ID:	Qb17121933	Date Received	12/18/2017 13:45
Prep Method:	SW-846 5035A	Date Prepared	12/18/2017 15:00
Prepared By:	Jdongre		
Prep Batch ID	PB17121917		
Analyst Initial	JKD	% Moisture	48.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.026	D1,U	0.026	0.426	0.00031	0.005	0.05	mg/Kg	44	12/19/17 16:21
108-88-3	Toluene	< 0.037	D1,U	0.037	0.426	0.00044	0.005	0.05	mg/Kg	44	12/19/17 16:21
100-41-4	Ethylbenzene	< 0.037	D1,U	0.037	0.426	0.00044	0.005	0.05	mg/Kg	44	12/19/17 16:21
108-38-3&106-4	m- & p-Xylenes	< 0.094	D1,U	0.094	0.851	0.0011	0.010	0.10	mg/Kg	44	12/19/17 16:21
95-47-6	o-Xylene	< 0.035	D1,U	0.035	0.426	0.00041	0.005	0.05	mg/Kg	44	12/19/17 16:21
1330-20-7	Xylenes	< 0.126	D1,U	0.126	1.28	0.00148	0.015	0.15	mg/Kg	44	12/19/17 16:21
17060-07-0	1,2-Dichloroethane-d4	89.6					70	130	%	44	12/19/17 16:21
1868-53-7	Dibromofluoromethan	98.6					70	130	%	44	12/19/17 16:21
2037-26-5	Toluene-d8(surr)	87.6					70	130	%	44	12/19/17 16:21
460-00-4	p-Bromofluorobenzen	88.1					70	130	%	44	12/19/17 16:21

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 3 **Renumbered to Sample ID No. 8**
A&B Job Sample ID: 17120958.03

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	12/18/2017 11:18
QC Batch ID:	Qb17122028	Date Received	12/18/2017 13:45
Prep Method:	TX 1005	Date Prepared	12/18/2017 14:00
Prepared By:	LLe		
Prep Batch ID	PB17122017		
Analyst Initial	LL	% Moisture	48.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	<4630	D1,U	4630	4884	23.7	25	1000	mg/Kg	101	12/19/17 00:39
TPH-1005-2	>C12-C28	23072		3966	4884	20.3	25	1000	mg/Kg	101	12/19/17 00:39
TPH-1005-4	>C28-C35	37952		3458	4884	17.7	25	1000	mg/Kg	101	12/19/17 00:39
	Total C6-C35	61024					----	----	mg/Kg	101	12/19/17 00:39
111-85-3	1-Chlorooctane(surr)	N/A	S4				60	143	%	101	12/19/17 00:39
3386-33-2	Chlorooctadecane(sur	N/A	S4				60	150	%	101	12/19/17 00:39

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 4 **Renumbered to Sample ID No. 9**
A&B Job Sample ID: 17120958.04

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	12/18/2017 11:25
QC Batch ID:	Qb17121879	Date Received	12/18/2017 13:45
Prep Method:	SM 2540G	Date Prepared	12/18/2017 17:00
Prepared By:	Alomeda		
Prep Batch ID	PB17121842		
Analyst Initial	AL	% Moisture	12.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	12.1					----	----	%	1	12/18/17 17:30

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 4 **Renumbered to Sample ID No. 9**
A&B Job Sample ID: 17120958.04

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Purgeable Aromatics**	Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	12/18/2017 11:25
QC Batch ID:	Qb17121933	Date Received	12/18/2017 13:45
Prep Method:	SW-846 5035A	Date Prepared	12/18/2017 15:00
Prepared By:	Jdongre		
Prep Batch ID	PB17121917		
Analyst Initial	JKD	% Moisture	12.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.00021	U	0.00021	0.003	0.00031	0.005	0.05	mg/Kg	0.60	12/19/17 06:02
108-88-3	Toluene	< 0.0003	U	0.0003	0.003	0.00044	0.005	0.05	mg/Kg	0.60	12/19/17 06:02
100-41-4	Ethylbenzene	< 0.0003	U	0.0003	0.003	0.00044	0.005	0.05	mg/Kg	0.60	12/19/17 06:02
108-38-3&106-4	m- & p-Xylenes	< 0.00075	U	0.00075	0.007	0.0011	0.010	0.10	mg/Kg	0.60	12/19/17 06:02
95-47-6	o-Xylene	< 0.00028	U	0.00028	0.003	0.00041	0.005	0.05	mg/Kg	0.60	12/19/17 06:02
1330-20-7	Xylenes	< 0.001	U	0.001	0.01	0.00148	0.015	0.15	mg/Kg	0.60	12/19/17 06:02
17060-07-0	1,2-Dichloroethane-d4	99.4					70	130	%	0.60	12/19/17 06:02
1868-53-7	Dibromofluoromethan	106					70	130	%	0.60	12/19/17 06:02
2037-26-5	Toluene-d8(surr)	100					70	130	%	0.60	12/19/17 06:02
460-00-4	p-Bromofluorobenzen	118					70	130	%	0.60	12/19/17 06:02

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 4 **Renumbered to Sample ID No. 9**
A&B Job Sample ID: 17120958.04

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	12/18/2017 11:25
QC Batch ID:	Qb17122028	Date Received	12/18/2017 13:45
Prep Method:	TX 1005	Date Prepared	12/18/2017 14:00
Prepared By:	LLe		
Prep Batch ID	PB17122017		
Analyst Initial	LL	% Moisture	12.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 135	D1,U	135	142	23.7	25	1000	mg/Kg	5	12/19/17 15:15
TPH-1005-2	>C12-C28	162		115	142	20.3	25	1000	mg/Kg	5	12/19/17 15:15
TPH-1005-4	>C28-C35	367		101	142	17.7	25	1000	mg/Kg	5	12/19/17 15:15
	Total C6-C35	529					----	----	mg/Kg	5	12/19/17 15:15
111-85-3	1-Chlorooctane(surr)	65.9					60	143	%	5	12/19/17 15:15
3386-33-2	Chlorooctadecane(sur	79.7					60	150	%	5	12/19/17 15:15

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 5 **Renumbered to Sample ID No. 10**
A&B Job Sample ID: 17120958.05

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	12/18/2017 11:30
QC Batch ID:	Qb17121879	Date Received	12/18/2017 13:45
Prep Method:	SM 2540G	Date Prepared	12/18/2017 17:00
Prepared By:	Alomeda		
Prep Batch ID	PB17121842		
Analyst Initial	AL	% Moisture	18.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	18.4					----	----	%	1	12/18/17 17:30

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 5 **Renumbered to Sample ID No. 10**
A&B Job Sample ID: 17120958.05

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling	
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)		

Test Description:	**Purgeable Aromatics**	Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	12/18/2017 11:30
QC Batch ID:	Qb17121933	Date Received	12/18/2017 13:45
Prep Method:	SW-846 5035A	Date Prepared	12/18/2017 15:00
Prepared By:	Jdongre		
Prep Batch ID	PB17121917		
Analyst Initial	JKD	% Moisture	18.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.00016	U	0.00016	0.003	0.00031	0.005	0.05	mg/Kg	0.42	12/19/17 06:36
108-88-3	Toluene	< 0.00023	U	0.00023	0.003	0.00044	0.005	0.05	mg/Kg	0.42	12/19/17 06:36
100-41-4	Ethylbenzene	< 0.00023	U	0.00023	0.003	0.00044	0.005	0.05	mg/Kg	0.42	12/19/17 06:36
108-38-3&106-4	m- & p-Xylenes	< 0.00057	U	0.00057	0.005	0.0011	0.010	0.10	mg/Kg	0.42	12/19/17 06:36
95-47-6	o-Xylene	< 0.00021	U	0.00021	0.003	0.00041	0.005	0.05	mg/Kg	0.42	12/19/17 06:36
1330-20-7	Xylenes	< 0.00076	U	0.00076	0.008	0.00148	0.015	0.15	mg/Kg	0.42	12/19/17 06:36
17060-07-0	1,2-Dichloroethane-d4	108					70	130	%	0.42	12/19/17 06:36
1868-53-7	Dibromofluoromethan	115					70	130	%	0.42	12/19/17 06:36
2037-26-5	Toluene-d8(surr)	93.4					70	130	%	0.42	12/19/17 06:36
460-00-4	p-Bromofluorobenzen	112					70	130	%	0.42	12/19/17 06:36

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: 5 **Renumbered to Sample ID No. 10**
A&B Job Sample ID: 17120958.05

Date: 12/22/2017

Client Name:	Air & Waste Engineering, Inc.	Attn: Bill Smalling
Project Name:	02-170351 / 7012 Banyan Houston, TX (TL00CWS)	

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	12/18/2017 11:30
QC Batch ID:	Qb17122028	Date Received	12/18/2017 13:45
Prep Method:	TX 1005	Date Prepared	12/18/2017 14:00
Prepared By:	LLe		
Prep Batch ID	PB17122017		
Analyst Initial	LL	% Moisture	18.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29	U	29	30.6	23.7	25	1000	mg/Kg	1	12/18/17 23:12
TPH-1005-2	>C12-C28	< 24.9	U	24.9	30.6	20.3	25	1000	mg/Kg	1	12/18/17 23:12
TPH-1005-4	>C28-C35	< 21.7	U	21.7	30.6	17.7	25	1000	mg/Kg	1	12/18/17 23:12
	Total C6-C35	<					----	----	mg/Kg	1	12/18/17 23:12
111-85-3	1-Chlorooctane(surr)	135					60	143	%	1	12/18/17 23:12
3386-33-2	Chlorooctadecane(sur	140					60	150	%	1	12/18/17 23:12

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : % Moisture **Method : SM 2540G** **Reporting Units : %**

QC Batch ID : Qb17121879 **Created Date :** 12/18/17 **Created By :** Alomeda

Samples in This QC Batch : 17120958.01,02,03,04,05

Sample Preparation : PB17121842 **Prep Method :** SM 2540G **Prep Date :** 12/18/17 17:00 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17120958.05

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	18.7	18.4	%	1.6	20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : **Purgeable Aromatics** **Method :** **SW-846 8260C** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb17121933 **Created Date :** 12/18/17 **Created By :** Jdongre

Samples in This QC Batch : 17120958.01,02,03,04,05

Sample Preparation : PB17121917 **Prep Method :** SW-846 5035A **Prep Date :** 12/18/17 15:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Benzene	71-43-2	< MDL	mg/Kg	1	0.005	0.001		
Ethylbenzene	100-41-4	< MDL	mg/Kg	1	0.005	0.001		
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/Kg	1	0.01	0.001		
o-Xylene	95-47-6	< MDL	mg/Kg	1	0.005	0.001		
Toluene	108-88-3	< MDL	mg/Kg	1	0.005	0.001		
Xylenes	1330-20-7	< MDL	mg/Kg	1	0.005	0.001		
Dibromofluoromethane(surr	1868-53-7	113	%	1				
1,2-Dichloroethane-d4(surr	17060-07-0	111	%	1				
Toluene-d8(surr)	2037-26-5	96.9	%	1				
p-Bromofluorobenzene(surr	460-00-4	102	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Benzene	0.02	0.024	120	0.02	0.023	115	4.3	30	74-126	
Ethylbenzene	0.02	0.021	105	0.02	0.02	100	4.9	30	72.2-128	
m- & p-Xylenes	0.04	0.045	113	0.04	0.04	100	11.8	30	70.7-131	
o-Xylene	0.02	0.021	105	0.02	0.02	100	4.9	30	71.6-130	
Toluene	0.02	0.021	105	0.02	0.019	95	10	30	73.3-127	
Xylenes	0.06	0.066	110	0.06	0.06	100	9.5	30	69.2-133	

QC Type: MS and MSD
QC Sample ID:

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Benzene	BRL	0.0094	0.011	117						74-126	
Ethylbenzene	BRL	0.0094	0.0098	104						72.2-128	
m- & p-Xylenes	BRL	0.019	0.02	105						70.7-131	
o-Xylene	BRL	0.0094	0.0097	103						71.6-130	
Toluene	BRL	0.0094	0.01	106						73.3-127	
Xylenes	BRL	0.028	0.0297	106						69.2-133	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : **Total Petroleum Hydrocarbons** **Method :** **TX 1005** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb17122028 **Created Date :** 12/18/17 **Created By :** LLe

Samples in This QC Batch : 17120958.01,02,03,04,05

Sample Preparation : PB17122017 **Prep Method :** TX 1005 **Prep Date :** 12/18/17 14:00 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
C6-C12	TPH-1005-1	< MDL	mg/Kg	1	25	23.7		
>C12-C28	TPH-1005-2	< MDL	mg/Kg	1	25	20.3		
>C28-C35	TPH-1005-4	< MDL	mg/Kg	1	25	17.7		
Total C6-C35		< MDL	mg/Kg	1	----			
Chlorooctadecane(surr)	3386-33-2	99.6	%	1				
1-Chlorooctane(surr)	111-85-3	102	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	467	93.4	500	508	102	8.4	20	75-125	
>C12-C28	500	542	108	500	594	119	9.2	20	75-125	
>C28-C35	500	460	92	500	513	103	10.9	20	75-125	

QC Type: MS and MSD
QC Sample ID: 17120962.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	497	99.4	500	459	91.8	8	20	75-125	
>C12-C28	BRL	500	593	119	500	540	108	9.4	20	75-125	
>C28-C35	BRL	500	500	100	500	449	89.8	10.7	20	75-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : **Total Metals - Mercury** **Method :** **SW-846 7470A** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb17122165 **Created Date :** 12/21/17 **Created By :** BRena

Samples in This QC Batch : 17120958.01

Digestion : PB17122129 **Prep Method :** SW-846 7470A **Prep Date :** 12/21/17 12:00 **Prep By :** BRena

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Mercury	7439-97-6	< MDL	mg/Kg	1	0.004	0.001		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Mercury	0.1	0.103	103	0.1	0.107	107	4.5	20	80-120	

QC Type: MS and MSD
QC Sample ID: 17121074.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Mercury	0.118	0.1	0.238	120						70-130	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : **Total Recoverable Metals** **Method :** **SW-846 6010C** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb17122178 **Created Date :** 12/21/17 **Created By :** Ggorane

Samples in This QC Batch : 17120958.01

Digestion : PB17122140 **Prep Method :** SW-846 3050B **Prep Date :** 12/21/17 09:05 **Prep By :** JYou

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Arsenic	7440-38-2	< MDL	mg/Kg	1	0.25	0.1		
Barium	7440-39-3	< MDL	mg/Kg	1	0.25	0.1		
Cadmium	7440-43-9	< MDL	mg/Kg	1	0.25	0.04		
Chromium	7440-47-3	< MDL	mg/Kg	1	0.25	0.1		
Copper	7440-50-8	< MDL	mg/Kg	1	0.25	0.1		
Lead	7439-92-1	< MDL	mg/Kg	1	0.25	0.1		
Manganese	7439-95-5	< MDL	mg/Kg	1	0.25	0.1		
Nickel	7440-02-0	< MDL	mg/Kg	1	0.25	0.1		
Selenium	7782-49-2	< MDL	mg/Kg	1	0.25	0.1		
Silver	7440-22-4	< MDL	mg/Kg	1	0.25	0.02		
Zinc	7440-66-6	< MDL	mg/Kg	1	0.25	0.1		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Arsenic	25	23.6	94.4	25	24.0	96	1.7	20	80-120	
Barium	25	25.5	102	25	26.0	104	1.9	20	80-120	
Cadmium	25	22.9	91.6	25	23.3	93.2	1.7	20	80-120	
Chromium	25	22.2	88.8	25	22.9	91.6	3.1	20	80-120	
Copper	25	23.7	94.8	25	24.1	96.4	1.7	20	80-120	
Lead	25	22.7	90.8	25	23.1	92.4	1.8	20	80-120	
Manganese	25	23.4	93.6	25	24.1	96.4	3	20	80-120	
Nickel	25	22.6	90.4	25	23.0	92	1.8	20	80-120	
Selenium	25	21.9	87.6	25	22.1	88.4	0.9	20	80-120	
Silver	25	22.6	90.4	25	23.0	92	1.8	20	80-120	
Zinc	25	24.3	97.2	25	24.7	98.8	1.6	20	80-120	

QC Type: MS and MSD
QC Sample ID: 17121074.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Arsenic	1.2	25	20.1	75.5						70-130	
Barium	88.2	25	72.4	-63.20000						70-130	M3
Cadmium	BRL	25	19.0	75.4						70-130	
Chromium	12.1	25	30.4	73.2						70-130	
Copper	1.9	25	21.8	79.6						70-130	
Lead	4.0	25	21.1	68.6						70-130	M2

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17120958 **Date :** 12/22/2017

Analysis : Total Recoverable Metals **Method : SW-846 6010C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17122178 **Created Date :** 12/21/17 **Created By :** Ggorane

Samples in This QC Batch : 17120958.01

QC Type: MS and MSD
QC Sample ID: 17121074.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Manganese	117.0	25	108	-36						70-130	M3
Nickel	1.4	25	19.0	70.5						70-130	
Selenium	BRL	25	17.2	67.7						70-130	M2
Silver	BRL	25	19.1	76.1						70-130	
Zinc	7.4	25	26.3	75.6						70-130	

Refer to the Definition page for terms.

A.& B Labs *Chain of Custody*

The Chain of Custody is a Legal Document

Page _____ of _____

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 17-20958

5. Project # 02-170351

REPORT TO:

1. Company: Air+Waste Engineering Inc.
Address: PO Box 16211
Sugar Land Tx 77496
Contact: Bill Smalling
Phone:
Fax: ☐
E-mail: ☑ bsmalling@airandwasteengineering.com

INVOICE TO:

2. Company:
Address:
Contact:
Phone:
Fax: ☐
E-mail: ☐

→ Same as "Report to"

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☐ Other:
☐ 2 Days*
☑ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location
7012 Banyan
Houston, Tx (TL00CWS)

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☐ EDD

8. Sampler's Name & Company (PLEASE PRINT)
Bill Smalling
Air+Waste Engineering Inc.

Sampler's Signature & Date
Dec. 18, 2017

13. No. of Containers
14. Containers*
15. Preservatives**
16. PH-Lab Only
17. Analyses/Methods

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	Time 24hr	11. Comp.	Grab	12. Matrix Water	Soil	Sludge	Oil	Drinking Water	Air	Other	8260-8260 BTEX	TX1005-8-REV3 (5035)	TX1005 TPH	MOIST-SW3550 (Moist %)	Haz Metals, 12	18. REMARKS
01AG	1	12/18/17	1104				X						✓	✓	✓	✓		
02AG	2	12/18/17	1110				X						✓	✓	✓			
03AG	3	12/18/17	1118				X						✓	✓	✓			
04AG	4	12/18/17	1125				X						✓	✓	✓			
05AG	5	12/18/17	1130				X						✓	✓	✓			

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1 Bill Smalling / Bill Smalling	Dec. 18, 2017	1345		12/18/17	13:45
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 2.7 + 0.7 = 3.4 °C
Thermometer ID 111601055
Intact: Y or N Initials S-O

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other _____

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID : **17120958**	Date Received : **12/18/2017**	Time Received : **1:45PM**
Client Name : **Air & Waste Engineering, Inc.**		
Temperature : **2.7+0.7cf=3.4°C**	Sample pH : **n/a**	
Thermometer ID : **111601055**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** Water ☐ Soil ☑ Liquid ☐ Sludge ☐ Solid ☐ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Received 6 pre-weighed vials and 1 bulk jar per sample. -ANH 12-18-17.

Received by : Sortega

Check in by/date : AHall / 12/18/2017

DCS Summary

A&B JobID 17120958
Air & Waste Engineering, Inc.
02-170351 / 7012 Banyan Houston, TX
(TL00CWS)
Sample Collected 12/18/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 7470A	Mercury	0.0036	mg/Kg	1	0.004	mg/Kg	90.5	11/16/2017	AVispute

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6010C	Arsenic	1.721	mg/Kg	1	1	mg/Kg	172	09/28/2017	BRena
DCS	SW-846 6010C	Barium	1.244	mg/Kg	1	1	mg/Kg	124	09/28/2017	BRena
DCS	SW-846 6010C	Cadmium	1.017	mg/Kg	1	1	mg/Kg	102	09/28/2017	BRena
DCS	SW-846 6010C	Chromium	1.061	mg/Kg	1	1	mg/Kg	106	09/28/2017	BRena
DCS	SW-846 6010C	Lead	1.074	mg/Kg	1	1	mg/Kg	107	09/28/2017	BRena
DCS	SW-846 6010C	Selenium	2.126	mg/Kg	1	1	mg/Kg	213	09/28/2017	BRena
DCS	SW-846 6010C	Silver	0.959	mg/Kg	1	1	mg/Kg	95.9	09/28/2017	BRena

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	TX 1005	>C12-C28	26.1	mg/Kg	1	25	mg/Kg	104	12/05/2017	LLe
DCS	TX 1005	>C28-C35	28.4	mg/Kg	1	25	mg/Kg	114	12/05/2017	LLe
DCS	TX 1005	C6-C12	28.5	mg/Kg	1	25	mg/Kg	114	12/05/2017	LLe
DCS	TX 1005	Total C6-C35	83	mg/Kg	1	75	mg/Kg	111	12/05/2017	LLe

Laboratory Data Package Cover Page

This data package is for Job No. 17120958 and laboratory batch no(s). Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

☒ R1 - Field chain-of-custody documentation;

☒ R2 - Sample identification cross-reference;

☒ R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

☒ R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

☒ R5 - Test reports/summary forms for blank samples;

☒ R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

c. LCS spiking amounts,

d. Calculated %R for each analyte, and

e. The laboratory's LCS QC limits.

☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

f. Samples associated with the MS/MSD clearly identified,

g. MS/MSD spiking amounts,

h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

i. Calculated %Rs and relative percent differences (RPDs), and

j. The laboratory's MS/MSD QC limits

☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

k. The amount of analyte measured in the duplicate,

l. The calculated RPD, and

m. The laboratory's QC limits for analytical duplicates.

☒ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

☒ R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Shantall Carpenter	Shantall Carpenter	Senior Project Manager	12/22/2017

Laboratory Review Checklist: Reportable Data

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS) Reviewed By: Scarpenter
A&B Job ID: 17120958 Date Reviewed: 12/22/2017
Prep Batch Number(s): Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?	X				
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Was % moisture (or solids) reported for all samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035	X				
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?		X			R4/2
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?	X				
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?		X			R7/3
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	**OI**	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10/2
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

S1	**OI**	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	**OI**	**INITIAL AND CONTINUING CALIBRATION VERIFICATION (ICCV AND CCV) AND CONTINUING CALIBRATION BLANK (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	**O**	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	**O**	**INTERNAL STANDARDS (IS):**					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	**OI**	**Raw data (NELAC Section 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	**OI**	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?	X				
S7	**OI**	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	**OI**	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?	X				
S9	**OI**	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits		X			S9
S10	**OI**	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	**OI**	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	**OI**	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS) Reviewed By: Scarpenter
A&B Job ID: 17120958 Date Reviewed: 12/22/2017
Prep Batch Number(s): Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178

#	A	Description	Yes	No	NA	NR	ER#
S13	**OI**	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	**OI**	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	**OI**	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	**OI**	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION			
R4/2	S1 - Surrogate recovery is above control limit. Results may be biased high., S4 - Surrogate not available due to dilution of sample extract for quantification., S8 - Target compounds caused elevation of baseline. Surrogate may be biased high.			
	(S1)1	17120958.01	Qb17122028	TPH_1005
	(S1)2	17120958.02	Qb17122028	TPH_1005
	(S1)3	17120958.03	Qb17122028	TPH_1005
	(S1)4	17120958.04	Qb17122028	TPH_1005
	(S1)5	17120958.05	Qb17122028	TPH_1005
	(S4)1	17120958.01	Qb17122028	TPH_1005
	(S4)3	17120958.03	Qb17122028	TPH_1005
	(S8)2	17120958.02	Qb17122028	TPH_1005
R7/3	M2 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference., M3 - The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to spike level. The LCS recovery is acceptable.			
	(M2)Standifer B1	17121074.01	Qb17122178	Metals
	(M3)Standifer B1	17121074.01	Qb17122178	Metals
R10/2	D1 - Sample required dilution due to matrix effects.			
	(D1)1	17120958.01	Qb17122028	TPH_1005
	(D1)2	17120958.02	Qb17122028	TPH_1005
	(D1)3	17120958.03	Qb17121933	BTEX+MTBE
	(D1)3	17120958.03	Qb17122028	TPH_1005
	(D1)4	17120958.04	Qb17122028	TPH_1005
S9	The Post Digestion Spike recoveries were below control limits for the following: Qb17122178 - barium (42.4%), lead (72.6%), manganese (60%), selenium (75.7%) The following Serial Dilutions were outside the acceptance criteria of ten percent difference (%D): Qb17122178 - barium recovery acceptable, lead (23.7%D), manganese (15.7%D), selenium recovery acceptable			
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O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

Laboratory Review Checklist: Reportable Data

Project Name: 02-170351 / 7012 Banyan Houston, TX (TL00CWS)
A&B Job ID: 17120958
Prep Batch Number(s): Qb17121879,Qb17121933,Qb17122028,Qb17122165,Qb17122178

Reviewed By: Scarpenter
Date Reviewed: 12/22/2017

NR = Not Reviewed;

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Analysis Report

Total Number of Pages: 27

Job ID : 18010244

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
7012 Banyan

Report To :	Client Name:	Air & Waste Engineering, Inc.	P.O.#.:	
	Attn:	Bill Smalling	Sample Collected By:	Bill Smalling
	Client Address:	P.O. Box 6211	Date Collected:	01/05/18
	City, State, Zip:	Sugarland, Texas, 77496		

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
11	Liquid	18010244.01
12	Liquid	18010244.02
11	Sludge	18010244.03
11	Heavy Liquid	18010244.04
12	Heavy Liquid	18010244.05

Released By: Shantall Carpenter

Title: Senior Project Manager

Date: 1/11/2018

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

Date Received : 01/05/2018 13:51

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 18010244

Date: 1/11/2018

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

D1	Sample required dilution due to matrix effects.
L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
M9	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits.
N1	See case narrative.
Q18	Soils not collected in a hermetically sealed container may lose low-level VOCs.
S1	Surrogate recovery is above control limit. Results may be biased high.
S4	Surrogate not available due to dilution of sample extract for quantification.
V11	CCV recovery is below acceptance limits.

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.01

Sample Matrix Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 6010C	TCLP Metals								
	Arsenic	BRL	mg/L	1	0.04	5.0		01/08/18 15:13	CAS
	Barium	0.068	mg/L	1	0.04	100.0		01/08/18 15:13	CAS
	Cadmium	BRL	mg/L	1	0.04	1.0		01/08/18 15:13	CAS
	Chromium	BRL	mg/L	1	0.04	5.0		01/08/18 15:13	CAS
	Lead	BRL	mg/L	1	0.04	5.0		01/08/18 15:13	CAS
	Selenium	BRL	mg/L	1	0.04	1.0		01/08/18 15:13	CAS
	Silver	BRL	mg/L	1	0.04	5.0		01/08/18 15:13	CAS
SW-846 7470A	TCLP Metals, Mercury								
	Mercury	BRL	mg/L	4	0.002	0.2	D1	01/10/18 12:31	BRR
SW-846 8260C	Volatile Organic Compounds								
	1,1,1,2-Tetrachloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1,1-Trichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1,2,2-Tetrachloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1,2-Trichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1-Dichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,1-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2,3-trichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2,3-Trichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2,4-Trichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2,4-Trimethylbenzene	1.21	mg/L	50	0.25			01/10/18 13:20	JKD
	1,2-Dibromo-3-chloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2-Dibromoethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2-Dichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,2-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,3,5-Trimethylbenzene	0.274	mg/L	50	0.25			01/10/18 13:20	JKD
	1,3-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,3-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	1,4-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	2,2-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	2-Chlorotoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	4-Chlorotoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	4-Isopropyltoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Benzene	0.624	mg/L	50	0.25			01/10/18 13:20	JKD
	Bromobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Bromochloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Bromodichloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.01

Sample Matrix Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	Volatile Organic Compounds								
	Bromoform	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Bromomethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Carbon tetrachloride	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Chlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Chloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Chloroform	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Chloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	cis-1,2-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	cis-1,3-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Dibromochloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Dibromomethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Dichlorodifluoromethane	BRL	mg/L	50	0.25		D1,V11	01/10/18 13:20	JKD
	Ethylbenzene	0.288	mg/L	50	0.25			01/10/18 13:20	JKD
	Isopropylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	m- & p-Xylenes	1.19	mg/L	50	0.5			01/10/18 13:20	JKD
	MEK	16.4	mg/L	1000	5			01/10/18 12:16	JKD
	Methylene chloride	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Naphthalene	0.632	mg/L	50	0.25			01/10/18 13:20	JKD
	n-Butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	n-Propylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	o-Xylene	0.609	mg/L	50	0.25			01/10/18 13:20	JKD
	sec-Butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Styrene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	t-butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Tetrachloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Toluene	1.75	mg/L	50	0.25			01/10/18 13:20	JKD
	trans-1,2-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	trans-1,3-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Trichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Trichlorofluoromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Vinyl Chloride	BRL	mg/L	50	0.25		D1	01/10/18 13:20	JKD
	Xylenes	1.799	mg/L	50	0.25			01/10/18 13:20	JKD
	1,2-Dichloroethane-d4(surr)	117	%	1000	70-130			01/10/18 12:16	JKD
	Dibromofluoromethane(surr)	107	%	1000	70-130			01/10/18 12:16	JKD
	p-Bromofluorobenzene(surr)	97.7	%	1000	70-130			01/10/18 12:16	JKD
	Toluene-d8(surr)	101	%	1000	70-130			01/10/18 12:16	JKD

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 12

Date Collected: 01/05/18

Time Collected: 13:15

Other Information:

Job Sample ID: 18010244.02

Sample Matrix Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 6010C	TCLP Metals								
	Arsenic	BRL	mg/L	1	0.04	5.0		01/08/18 15:17	CAS
	Barium	0.074	mg/L	1	0.04	100.0		01/08/18 15:17	CAS
	Cadmium	BRL	mg/L	1	0.04	1.0		01/08/18 15:17	CAS
	Chromium	BRL	mg/L	1	0.04	5.0		01/08/18 15:17	CAS
	Lead	BRL	mg/L	1	0.04	5.0		01/08/18 15:17	CAS
	Selenium	BRL	mg/L	1	0.04	1.0		01/08/18 15:17	CAS
	Silver	BRL	mg/L	1	0.04	5.0		01/08/18 15:17	CAS
SW-846 7470A	TCLP Metals, Mercury								
	Mercury	BRL	mg/L	20	0.01	0.2	D1	01/10/18 12:39	BRR
SW-846 8260C	Volatile Organic Compounds								
	1,1,1,2-Tetrachloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1,1-Trichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1,2,2-Tetrachloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1,2-Trichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1-Dichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,1-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2,3-trichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2,3-Trichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2,4-Trichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2,4-Trimethylbenzene	0.686	mg/L	50	0.25			01/10/18 13:52	JKD
	1,2-Dibromo-3-chloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2-Dibromoethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2-Dichloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,2-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,3,5-Trimethylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,3-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,3-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	1,4-Dichlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	2,2-Dichloropropane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	2-Chlorotoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	4-Chlorotoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	4-Isopropyltoluene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Benzene	0.616	mg/L	50	0.25			01/10/18 13:52	JKD
	Bromobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Bromochloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Bromodichloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 12

Date Collected: 01/05/18

Time Collected: 13:15

Other Information:

Job Sample ID: 18010244.02

Sample Matrix Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	Volatile Organic Compounds								
	Bromoform	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Bromomethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Carbon tetrachloride	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Chlorobenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Chloroethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Chloroform	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Chloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	cis-1,2-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	cis-1,3-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Dibromochloromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Dibromomethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Dichlorodifluoromethane	BRL	mg/L	50	0.25		D1,V11	01/10/18 13:52	JKD
	Ethylbenzene	0.308	mg/L	50	0.25			01/10/18 13:52	JKD
	Isopropylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	m- & p-Xylenes	1.03	mg/L	50	0.5			01/10/18 13:52	JKD
	MEK	3.03	mg/L	100	0.5			01/10/18 16:01	JKD
	Methylene chloride	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Naphthalene	0.355	mg/L	50	0.25			01/10/18 13:52	JKD
	n-Butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	n-Propylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	o-Xylene	0.523	mg/L	50	0.25			01/10/18 13:52	JKD
	sec-Butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Styrene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	t-butylbenzene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Tetrachloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Toluene	3.17	mg/L	100	0.5			01/10/18 16:01	JKD
	trans-1,2-Dichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	trans-1,3-Dichloropropene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Trichloroethylene	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Trichlorofluoromethane	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Vinyl Chloride	BRL	mg/L	50	0.25		D1	01/10/18 13:52	JKD
	Xylenes	1.553	mg/L	50	0.25			01/10/18 13:52	JKD
	1,2-Dichloroethane-d4(surr)	102	%	50	70-130			01/10/18 13:52	JKD
	Dibromofluoromethane(surr)	95.2	%	50	70-130			01/10/18 13:52	JKD
	p-Bromofluorobenzene(surr)	101	%	50	70-130			01/10/18 13:52	JKD
	Toluene-d8(surr)	99	%	50	70-130			01/10/18 13:52	JKD

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.03

Sample Matrix Sludge

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8270D	Semivolatile Organic Compounds								
	1,2,4-Trichlorobenzene	BRL	mg/Kg	90	29.97		D1,N1	01/08/18 15:23	VMN
	1,2-Dichlorobenzene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	1,3-Dichlorobenzene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	1,4-Dichlorobenzene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,4,5-Trichlorophenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,4,6-Trichlorophenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,4-Dichlorophenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,4-Dimethylphenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,4-Dinitrophenol	BRL	mg/Kg	90	150.3			01/08/18 15:23	VMN
	2,4-Dinitrotoluene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2,6-Dinitrotoluene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Chloronaphthalene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Chlorophenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Methylnaphthalene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Methylphenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Nitroaniline	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	2-Nitrophenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	3- & 4-Methylphenols	BRL	mg/Kg	90	60.03			01/08/18 15:23	VMN
	3,3-Dichlorobenzidine	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	3-Nitroaniline	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4,6-Dinitro-2-methylphenol	BRL	mg/Kg	90	150.3			01/08/18 15:23	VMN
	4-Bromophenyl phenyl ether	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4-Chloro-3-methylphenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4-Chloroaniline	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4-Chlorophenyl phenyl ether	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4-Nitroaniline	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	4-Nitrophenol	BRL	mg/Kg	90	150.3			01/08/18 15:23	VMN
	Acenaphthene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Acenaphthylene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Aniline	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Anthracene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Benzidine	BRL	mg/Kg	90	180			01/08/18 15:23	VMN
	Benzo(a)anthracene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Benzo(a)pyrene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Benzo(b)fluoranthene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Benzo(g,h,i)perylene	BRL	mg/Kg	90	36			01/08/18 15:23	VMN
	Benzo(k)fluoranthene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.03

Sample Matrix Sludge

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8270D	Semivolatile Organic Compounds								
	Benzoic acid	BRL	mg/Kg	90	150.3			01/08/18 15:23	VMN
	Benzyl alcohol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Bis(2-chloroethoxy) methane	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Bis(2-chloroethyl) ether	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Bis(2-chloroisopropyl) ether	BRL	mg/Kg	90	45			01/08/18 15:23	VMN
	Bis(2-ethylhexyl)phthalate	BRL	mg/Kg	90	90			01/08/18 15:23	VMN
	Butyl benzyl phthalate	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Carbazole	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Chrysene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Dibenzo(a,h)anthracene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Dibenzofuran	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Diethyl phthalate	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Dimethyl phthalate	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Di-n-butyl phthalate	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Di-n-octyl Phthalate	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Fluoranthene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Fluorene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Hexachlorobenzene	BRL	mg/Kg	90	45			01/08/18 15:23	VMN
	Hexachlorobutadiene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Hexachlorocyclopentadiene	BRL	mg/Kg	90	180			01/08/18 15:23	VMN
	Hexachloroethane	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Indeno(1,2,3-cd)pyrene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Isophorone	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Naphthalene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Nitrobenzene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	N-Nitrosodimethylamine	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	N-nitroso-di-n-propylamine	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	N-Nitrosodiphenylamine	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Pentachlorophenol	BRL	mg/Kg	90	150.3			01/08/18 15:23	VMN
	Phenanthrene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Phenol	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Pyrene	BRL	mg/Kg	90	29.97			01/08/18 15:23	VMN
	Pyridine	BRL	mg/Kg	90	90			01/08/18 15:23	VMN
	2,4,6-Tribromophenol(surr)	N/A	%	90	10-120		S4	01/08/18 15:23	VMN
	2-Fluorobiphenyl(surr)	N/A	%	90	30-115		S4	01/08/18 15:23	VMN
	2-Fluorophenol(surr)	N/A	%	90	20-115		S4	01/08/18 15:23	VMN
	Nitrobenzene-d5(surr)	N/A	%	90	20-120		S4	01/08/18 15:23	VMN
	Phenol-d6(surr)	N/A	%	90	15-120		S4	01/08/18 15:23	VMN

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.03

Sample Matrix Sludge

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8270D	Semivolatile Organic Compounds								
	p-Terphenyl-d14(surr)	N/A	%	90	30-140		S4	01/08/18 15:23	VMN

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 11

Date Collected: 01/05/18

Time Collected: 13:10

Other Information:

Job Sample ID: 18010244.04

Sample Matrix Heavy Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
TX 1005	Total Petroleum Hydrocarbons								
	C6-C12	BRL	mg/Kg	854	20239.8		D1,Q18	01/07/18 10:35	LL
	>C12-C28	23318	mg/Kg	854	17336.2			01/07/18 10:35	LL
	>C28-C35	58048	mg/Kg	854	15115.8			01/07/18 10:35	LL
	Total C6-C35	81366	mg/Kg	854				01/07/18 10:35	LL
	Chlorooctadecane(surr)	N/A	%	854	60-150		S4	01/07/18 10:35	LL
	1-Chlorooctane(surr)	N/A	%	854	60-143		S4	01/07/18 10:35	LL

LABORATORY TEST RESULTS

Job ID : 18010244

Date 1/11/2018

Client Name: Air & Waste Engineering, Inc.

Attn: Bill Smalling

Project Name: 7012 Banyan

Client Sample ID: 12

Date Collected: 01/05/18

Time Collected: 13:15

Other Information:

Job Sample ID: 18010244.05

Sample Matrix Heavy Liquid

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
TX 1005	Total Petroleum Hydrocarbons								
	C6-C12	BRL	mg/Kg	877	20784.9		D1,Q18	01/07/18 11:04	LL
	>C12-C28	52449	mg/Kg	877	17803.1			01/07/18 11:04	LL
	>C28-C35	99164	mg/Kg	877	15522.9			01/07/18 11:04	LL
	Total C6-C35	151613	mg/Kg	877				01/07/18 11:04	LL
	Chlorooctadecane(surr)	N/A	%	877	60-150		S4	01/07/18 11:04	LL
	1-Chlorooctane(surr)	N/A	%	877	60-143		S4	01/07/18 11:04	LL

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **TCLP Metals** **Method :** **SW-846 6010C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18010838 **Created Date :** 01/08/18 **Created By :** csmith

Samples in This QC Batch : 18010244.01,02

Digestion :	PB18010828	**Prep Method :**	SW-846 3010A	**Prep Date :**	01/08/18 09:30	**Prep By :**	Mwissman
TCLP Prep :	PB18010802	**Prep Method :**	SW-846 1311	**Prep Date :**	01/05/18 17:00	**Prep By :**	OHalili

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Arsenic	7440-38-2	BRL	mg/L	1	0.04		
Barium	7440-39-3	BRL	mg/L	1	0.04		
Cadmium	7440-43-9	BRL	mg/L	1	0.04		
Chromium	7440-47-3	BRL	mg/L	1	0.04		
Lead	7439-92-1	BRL	mg/L	1	0.04		
Selenium	7782-49-2	BRL	mg/L	1	0.04		
Silver	7440-22-4	BRL	mg/L	1	0.04		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Arsenic	2	2.040	102	2	2.039	102	0.0	20	80-120	
Barium	2	1.883	94.2	2	1.892	94.6	0.5	20	80-120	
Cadmium	2	1.855	92.8	2	1.855	92.8	0.0	20	80-120	
Chromium	2	1.886	94.3	2	1.886	94.3	0.0	20	80-120	
Lead	2	1.807	90.4	2	1.800	90	0.4	20	80-120	
Selenium	2	1.958	97.9	2	1.951	97.6	0.4	20	80-120	
Silver	2	1.972	98.6	2	1.973	98.7	0.1	20	80-120	

QC Type: MS and MSD
QC Sample ID: 18010210.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Arsenic	BRL	2	2.079	103						45-138	
Barium	1.555	2	3.384	91.5						39-135	
Cadmium	BRL	2	1.820	91						56-125	
Chromium	BRL	2	1.876	93.8						52-125	
Lead	BRL	2	1.776	88.6						55-125	
Selenium	BRL	2	1.991	99.6						70-130	
Silver	BRL	2	2.006	100						26-148	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

Extraction : PB18010835 **Prep Method :** SW-846 3546 **Prep Date :** 01/08/18 11:00 **Prep By :** MMuteen

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
1,2,4-Trichlorobenzene	120-82-1	BRL	mg/Kg	1	0.333		
1,2-Dichlorobenzene	95-50-1	BRL	mg/Kg	1	0.333		
1,3-Dichlorobenzene	541-73-1	BRL	mg/Kg	1	0.333		
1,4-Dichlorobenzene	106-46-7	BRL	mg/Kg	1	0.333		
2,4,5-Trichlorophenol	95-95-4	BRL	mg/Kg	1	0.333		
2,4,6-Trichlorophenol	88-06-2	BRL	mg/Kg	1	0.333		
2,4-Dichlorophenol	120-83-2	BRL	mg/Kg	1	0.333		
2,4-Dimethylphenol	105-67-9	BRL	mg/Kg	1	0.333		
2,4-Dinitrophenol	51-28-5	BRL	mg/Kg	1	1		
2,4-Dinitrotoluene	121-14-2	BRL	mg/Kg	1	0.333		
2,6-Dinitrotoluene	606-20-2	BRL	mg/Kg	1	0.333		
2-Chloronaphthalene	91-58-7	BRL	mg/Kg	1	0.333		
2-Chlorophenol	95-57-8	BRL	mg/Kg	1	0.333		
2-Methylnaphthalene	91-57-6	BRL	mg/Kg	1	0.333		
2-Methylphenol	95-48-7	BRL	mg/Kg	1	0.333		
2-Nitroaniline	88-74-4	BRL	mg/Kg	1	0.333		
2-Nitrophenol	88-75-5	BRL	mg/Kg	1	0.333		
3- & 4-Methylphenols	108-39-4 & 106-44-5	BRL	mg/Kg	1	0.667		
3,3-Dichlorobenzidine	91-94-1	BRL	mg/Kg	1	0.34		
3-Nitroaniline	99-09-2	BRL	mg/Kg	1	0.333		
4,6-Dinitro-2-methylphenol	534-52-1	BRL	mg/Kg	1	0.333		
4-Bromophenyl phenyl ethe	101-55-3	BRL	mg/Kg	1	0.333		
4-Chloro-3-methylphenol	59-50-7	BRL	mg/Kg	1	0.333		
4-Chloroaniline	106-47-8	BRL	mg/Kg	1	0.333		
4-Chlorophenyl phenyl ethe	7005-72-3	BRL	mg/Kg	1	0.333		
4-Nitroaniline	100-01-6	BRL	mg/Kg	1	0.333		
4-Nitrophenol	100-02-7	BRL	mg/Kg	1	0.333		
Acenaphthene	83-32-9	BRL	mg/Kg	1	0.333		
Acenaphthylene	208-96-8	BRL	mg/Kg	1	0.333		
Aniline	62-53-3	BRL	mg/Kg	1	0.333		
Anthracene	120-12-7	BRL	mg/Kg	1	0.333		
Benzidine	92-87-5	BRL	mg/Kg	1	2		
Benzo(a)anthracene	56-55-3	BRL	mg/Kg	1	0.333		
Benzo(a)pyrene	50-32-8	BRL	mg/Kg	1	0.333		
Benzo(b)fluoranthene	205-99-2	BRL	mg/Kg	1	0.333		
Benzo(g,h,i)perylene	191-24-2	BRL	mg/Kg	1	0.4		
Benzo(k)fluoranthene	207-08-9	BRL	mg/Kg	1	0.333		
Benzoic acid	65-85-0	BRL	mg/Kg	1	1		
Benzyl alcohol	100-51-6	BRL	mg/Kg	1	0.333		
Bis(2-chloroethoxy) methan	111-91-1	BRL	mg/Kg	1	0.333		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Bis(2-chloroethyl) ether	111-44-4	BRL	mg/Kg	1	0.333		
Bis(2-chloroisopropyl) ether	108-60-1	BRL	mg/Kg	1	0.5		
Bis(2-ethylhexyl)phthalate	117-81-7	BRL	mg/Kg	1	1		
Butyl benzyl phthalate	85-68-7	BRL	mg/Kg	1	0.333		
Carbazole	86-74-8	BRL	mg/Kg	1	0.333		
Chrysene	218-01-9	BRL	mg/Kg	1	0.333		
Dibenzo(a,h)anthracene	53-70-3	BRL	mg/Kg	1	0.333		
Dibenzofuran	132-64-9	BRL	mg/Kg	1	0.333		
Diethyl phthalate	84-66-2	BRL	mg/Kg	1	0.333		
Dimethyl phthalate	131-11-3	BRL	mg/Kg	1	0.333		
Di-n-butyl phthalate	84-74-2	BRL	mg/Kg	1	0.333		
Di-n-octyl Phthalate	117-84-0	BRL	mg/Kg	1	0.333		
Fluoranthene	206-44-0	BRL	mg/Kg	1	0.333		
Fluorene	86-73-7	BRL	mg/Kg	1	0.333		
Hexachlorobenzene	118-74-1	BRL	mg/Kg	1	0.5		
Hexachlorobutadiene	87-68-3	BRL	mg/Kg	1	0.333		
Hexachlorocyclopentadiene	77-47-4	BRL	mg/Kg	1	2		
Hexachloroethane	67-72-1	BRL	mg/Kg	1	0.333		
Indeno(1,2,3-cd)pyrene	193-39-5	BRL	mg/Kg	1	0.333		
Isophorone	78-59-1	BRL	mg/Kg	1	0.333		
Naphthalene	91-20-3	BRL	mg/Kg	1	0.333		
Nitrobenzene	98-95-3	BRL	mg/Kg	1	0.333		
N-Nitrosodimethylamine	62-75-9	BRL	mg/Kg	1	0.333		
N-nitroso-di-n-propylamine	621-64-7	BRL	mg/Kg	1	0.333		
N-Nitrosodiphenylamine	86-30-6	BRL	mg/Kg	1	0.333		
Pentachlorophenol	87-86-5	BRL	mg/Kg	1	0.333		
Phenanthrene	85-01-8	BRL	mg/Kg	1	0.333		
Phenol	108-95-2	BRL	mg/Kg	1	0.333		
Pyrene	129-00-0	BRL	mg/Kg	1	0.333		
Pyridine	110-86-1	BRL	mg/Kg	1	1		
2-Fluorophenol(surr)	367-12-4	66.6	%	1	20-115		
Phenol-d6(surr)	13127-88-3	65.7	%	1	15-120		
Nitrobenzene-d5(surr)	4165-60-0	56.9	%	1	20-120		
2-Fluorobiphenyl(surr)	132-60-8	70.7	%	1	30-115		
2,4,6-Tribromophenol(surr)	118-79-6	61.9	%	1	10-120		
p-Terphenyl-d14(surr)	1718-51-0	84.2	%	1	30-140		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,4-Trichlorobenzene	1.67	1.31	78.4	1.67	1.33	79.6	1.5	35	32-126	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2-Dichlorobenzene	1.67	1.26	75.4	1.67	1.30	77.8	3.1	35	34-118	
1,3-Dichlorobenzene	1.67	1.24	74.3	1.67	1.26	75.4	1.6	35	34-118	
1,4-Dichlorobenzene	1.67	1.27	76	1.67	1.28	76.6	0.8	35	35-115	
2,4,5-Trichlorophenol	1.67	1.31	78.4	1.67	1.35	80.8	3	35	35-124	
2,4,6-Trichlorophenol	1.67	1.36	81.4	1.67	1.38	82.6	1.5	35	35-123	
2,4-Dichlorophenol	1.67	1.31	78.4	1.67	1.33	79.6	1.5	35	31-124	
2,4-Dimethylphenol	1.67	1.26	75.4	1.67	1.30	77.8	3.1	35	29-129	
2,4-Dinitrophenol	1.67	0.82	49.1	1.67	0.88	52.7	7.1	35	D-94	
2,4-Dinitrotoluene	1.67	1.18	70.7	1.67	1.22	73.1	3.3	35	42-134	
2,6-Dinitrotoluene	1.67	1.19	71.3	1.67	1.19	71.3	0.0	35	37-128	
2-Chloronaphthalene	1.67	1.19	71.3	1.67	1.19	71.3	0.0	35	37-124	
2-Chlorophenol	1.67	1.29	77.2	1.67	1.32	79	2.3	35	26-119	
2-Methylnaphthalene	1.67	1.22	73.1	1.67	1.26	75.4	3.2	35	28-128	
2-Methylphenol	1.67	1.23	73.7	1.67	1.29	77.2	4.8	35	26-125	
2-Nitroaniline	1.67	1.18	70.7	1.67	1.25	74.9	5.8	35	45-135	
2-Nitrophenol	1.67	1.15	68.9	1.67	1.25	74.9	8.3	35	25-123	
3- & 4-Methylphenols	3.33	2.53	76	3.33	2.59	77.8	2.3	35	29-118	
3,3-Dichlorobenzidine	1.67	1.01	60.5	1.67	1.04	62.3	2.9	35	45-135	
3-Nitroaniline	1.67	1.18	70.7	1.67	1.25	74.9	5.8	35	45-135	
4,6-Dinitro-2-methylphenol	1.67	1.15	68.9	1.67	1.22	73.1	5.9	35	8-129	
4-Bromophenyl phenyl ethe	1.67	1.30	77.8	1.67	1.30	77.8	0.0	35	50-122	
4-Chloro-3-methylphenol	1.67	1.36	81.4	1.67	1.40	83.8	2.9	35	40-127	
4-Chloroaniline	1.67	1.18	70.7	1.67	1.24	74.3	5	35	45-135	
4-Chlorophenyl phenyl ethe	1.67	1.30	77.8	1.67	1.30	77.8	0.0	35	47-125	
4-Nitroaniline	1.67	1.17	70.1	1.67	1.20	71.9	2.5	35	45-135	
4-Nitrophenol	1.67	1.08	64.7	1.67	1.12	67.1	3.6	35	14-138	
Acenaphthene	1.67	1.27	76	1.67	1.26	75.4	0.8	35	45-125	
Acenaphthylene	1.67	1.24	74.3	1.67	1.26	75.4	1.6	35	43-118	
Aniline	1.67	1.24	74.3	1.67	1.30	77.8	4.7	35	28.5-114	
Anthracene	1.67	1.34	80.2	1.67	1.32	79	1.5	35	53-119	
Benzidine	1.67	1.42	85	2.67	1.52	56.9	6.8	35	D-135	
Benzo(a)anthracene	1.67	1.34	80.2	1.67	1.30	77.8	3	35	43-131	
Benzo(a)pyrene	1.67	1.20	71.9	1.67	1.23	73.7	2.5	35	43-126	
Benzo(b)fluoranthene	1.67	1.20	71.9	1.67	1.28	76.6	6.5	35	36-126	
Benzo(g,h,i)perylene	1.67	1.34	80.2	1.67	1.33	79.6	0.7	35	27-126	
Benzo(k)fluoranthene	1.67	1.24	74.3	1.67	1.19	71.3	4.1	35	36-134	
Benzoic acid	1.67	1.09	65.3	1.33	1.15	86.5	5.4	35	D-135	
Benzyl alcohol	1.67	1.16	69.5	1.67	1.23	73.7	5.9	35	45-135	
Bis(2-chloroethoxy) methan	1.67	1.13	67.7	1.67	1.14	68.3	0.9	35	33-125	
Bis(2-chloroethyl) ether	1.67	1.15	68.9	1.67	1.16	69.5	0.9	35	30-125	
Bis(2-chloroisopropyl) ether	1.67	0.974	58.3	1.67	0.988	59.2	1.4	35	27-122	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Bis(2-ethylhexyl)phthalate	1.67	1.03	61.7	1.67	1.02	61.1	1	35	8-158	
Butyl benzyl phthalate	1.67	1.06	63.5	1.67	1.07	64.1	0.9	35	50-139	
Carbazole	1.67	1.40	83.8	1.67	1.39	83.2	0.7	35	45-135	
Chrysene	1.67	1.29	77.2	1.67	1.29	77.2	0.0	35	42-131	
Dibenzo(a,h)anthracene	1.67	1.13	67.7	1.67	1.13	67.7	0.0	35	33-122	
Dibenzofuran	1.67	1.26	75.4	1.67	1.26	75.4	0.0	35	22-122	
Diethyl phthalate	1.67	1.30	77.8	1.67	1.31	78.4	0.8	35	48-126	
Dimethyl phthalate	1.67	1.29	77.2	1.67	1.28	76.6	0.8	35	48-122	
Di-n-butyl phthalate	1.67	1.15	68.9	1.67	1.18	70.7	2.6	35	51-126	
Di-n-octyl Phthalate	1.67	1.11	66.5	1.67	1.15	68.9	3.5	35	50-124	
Fluoranthene	1.67	1.39	83.2	1.67	1.40	83.8	0.7	35	51-125	
Fluorene	1.67	1.37	82	1.67	1.35	80.8	1.5	35	48-123	
Hexachlorobenzene	1.67	1.33	79.6	1.67	1.36	81.4	2.2	35	35-130	
Hexachlorobutadiene	1.67	1.30	77.8	1.67	1.29	77.2	0.8	35	31-115	
Hexachlorocyclopentadiene	1.67	0.00	0	1.67	0.00	0		35	D-116	
Hexachloroethane	1.67	1.17	70.1	1.67	1.20	71.9	2.5	35	36-114	
Indeno(1,2,3-cd)pyrene	1.67	1.10	65.9	1.67	1.17	70.1	6.2	35	31-135	
Isophorone	1.67	1.08	64.7	1.67	1.12	67.1	3.6	35	30-126	
Naphthalene	1.67	1.29	77.2	1.67	1.29	77.2	0.0	35	32-124	
Nitrobenzene	1.67	0.993	59.5	1.67	1.04	62.3	4.6	35	29-126	
N-Nitrosodimethylamine	1.67	1.18	70.7	1.67	1.22	73.1	3.3	35	21-121	
N-nitroso-di-n-propylamine	1.67	1.12	67.1	1.67	1.17	70.1	4.4	35	30-128	
N-Nitrosodiphenylamine	1.67	1.26	75.4	1.67	1.26	75.4	0.0	35	45-135	
Pentachlorophenol	1.67	1.42	85	1.67	1.45	86.8	2.1	35	36-117	
Phenanthrene	1.67	1.26	75.4	1.67	1.26	75.4	0.0	35	45-125	
Phenol	1.67	1.28	76.6	1.67	1.31	78.4	2.3	35	22-118	
Pyrene	1.67	1.32	79	1.67	1.31	78.4	0.8	35	32-138	
Pyridine	1.67	1.18	70.7	1.67	1.20	71.9	1.7	35	D-110	

QC Type: MS and MSD
QC Sample ID: 18010279.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2,4-Trichlorobenzene	BRL	1.67	0.994	59.5						32-126	
1,2-Dichlorobenzene	BRL	1.67	0.965	57.8						34-118	
1,3-Dichlorobenzene	BRL	1.67	0.927	55.5						34-118	
1,4-Dichlorobenzene	BRL	1.67	0.926	55.4						35-115	
2,4,5-Trichlorophenol	BRL	1.67	1.23	73.7						35-124	
2,4,6-Trichlorophenol	BRL	1.67	1.22	73.1						35-123	
2,4-Dichlorophenol	BRL	1.67	1.13	67.7						31-124	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

QC Type: MS and MSD
QC Sample ID: 18010279.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,4-Dimethylphenol	BRL	1.67	1.09	65.3						29-129	
2,4-Dinitrophenol	BRL	1.67	0.23	13.8						D-94	
2,4-Dinitrotoluene	BRL	1.67	1.03	61.7						42-134	
2,6-Dinitrotoluene	BRL	1.67	1.09	65.3						37-128	
2-Chloronaphthalene	BRL	1.67	1.02	61.1						37-124	
2-Chlorophenol	BRL	1.67	1.01	60.5						26-119	
2-Methylnaphthalene	BRL	1.67	1.01	60.5						28-128	
2-Methylphenol	BRL	1.67	1.01	60.5						26-125	
2-Nitroaniline	BRL	1.67	1.14	68.3						20-135	
2-Nitrophenol	BRL	1.67	0.965	57.8						25-123	
3- & 4-Methylphenols	BRL	3.33	2.15	64.6						29-118	
3,3-Dichlorobenzidine	BRL	2.67	0.933	34.9						20-135	
3-Nitroaniline	BRL	1.67	1.14	68.3						20-135	
4,6-Dinitro-2-methylphenol	BRL	1.67	0.718	43						8-129	
4-Bromophenyl phenyl ethe	BRL	1.67	1.20	71.9						50-122	
4-Chloro-3-methylphenol	BRL	1.67	1.28	76.6						40-127	
4-Chloroaniline	BRL	1.67	0.834	49.9						20-135	
4-Chlorophenyl phenyl ethe	BRL	1.67	1.20	71.9						47-125	
4-Nitroaniline	BRL	1.67	1.10	65.9						20-135	
4-Nitrophenol	BRL	1.67	0.959	57.4						14-138	
Acenaphthene	BRL	1.67	1.15	68.9						45-125	
Acenaphthylene	BRL	1.67	1.13	67.7						43-118	
Aniline	BRL	1.67	0.763	45.7						20-135	
Anthracene	BRL	1.67	1.23	73.7						53-119	
Benzidine	BRL	2.67	1.13	42.3						D-135	
Benzo(a)anthracene	BRL	1.67	1.25	74.9						43-131	
Benzo(a)pyrene	BRL	1.67	1.15	68.9						43-126	
Benzo(b)fluoranthene	BRL	1.67	1.16	69.5						36-126	
Benzo(g,h,i)perylene	BRL	1.67	1.21	72.5						27-126	
Benzo(k)fluoranthene	BRL	1.67	1.17	70.1						36-134	
Benzoic acid	BRL	1.33	0.12	9.02						D-135	
Benzyl alcohol	BRL	1.67	1.02	61.1						20-135	
Bis(2-chloroethoxy) methan	BRL	1.67	0.911	54.6						33-125	
Bis(2-chloroethyl) ether	BRL	1.67	0.858	51.4						30-125	
Bis(2-chloroisopropyl) ether	BRL	1.67	0.760	45.5						27-122	
Bis(2-ethylhexyl)phthalate	BRL	1.67	0.98	58.7						8-158	
Butyl benzyl phthalate	BRL	1.67	1.01	60.5						50-139	
Carbazole	BRL	1.67	1.30	77.8						20-135	
Chrysene	BRL	1.67	1.19	71.3						42-131	
Dibenzo(a,h)anthracene	BRL	1.67	1.01	60.5						33-122	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Semivolatile Organic Compounds** **Method :** **SW-846 8270D** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb18010848 **Created Date :** 01/08/18 **Created By :** VNair

Samples in This QC Batch : 18010244.03

QC Type: MS and MSD
QC Sample ID: 18010279.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Dibenzofuran	BRL	1.67	1.16	69.5						22-122	
Diethyl phthalate	BRL	1.67	1.17	70.1						48-126	
Dimethyl phthalate	BRL	1.67	1.17	70.1						48-122	
Di-n-butyl phthalate	BRL	1.67	1.07	64.1						51-126	
Di-n-octyl Phthalate	BRL	1.67	1.02	61.1						50-124	
Fluoranthene	BRL	1.67	1.25	74.9						51-125	
Fluorene	BRL	1.67	1.25	74.9						48-123	
Hexachlorobenzene	BRL	1.67	1.21	72.5						35-130	
Hexachlorobutadiene	BRL	1.67	0.946	56.6						31-115	
Hexachlorocyclopentadiene	BRL	1.67	5.26	315						D-116	
Hexachloroethane	BRL	1.67	0.831	49.8						36-114	
Indeno(1,2,3-cd)pyrene	BRL	1.67	1.15	68.9						31-135	
Isophorone	BRL	1.67	0.925	55.4						30-126	
Naphthalene	BRL	1.67	1.02	61.1						32-124	
Nitrobenzene	BRL	1.67	0.774	46.3						29-126	
N-Nitrosodimethylamine	BRL	1.67	0.884	52.9						21-121	
N-nitroso-di-n-propylamine	BRL	1.67	0.947	56.7						30-128	
N-Nitrosodiphenylamine	BRL	1.67	1.19	71.3						20-135	
Pentachlorophenol	BRL	1.67	1.01	60.5						36-117	
Phenanthrene	BRL	1.67	1.16	69.5						45-125	
Phenol	BRL	1.67	1.02	61.1						22-118	
Pyrene	BRL	1.67	1.27	76						32-138	
Pyridine	BRL	1.67	0.84	50.3						D-110	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Total Petroleum Hydrocarbons** **Method :** **TX 1005** **Reporting Units :** **mg/Kg**

QC Batch ID : Qb180109103 **Created Date :** 01/05/18 **Created By :** LLe

Samples in This QC Batch : 18010244.04,05

Sample Preparation : PB18010952 **Prep Method :** TX 1005 **Prep Date :** 01/05/18 17:00 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
C6-C12	TPH-1005-1	BRL	mg/Kg	1	23.7		
>C12-C28	TPH-1005-2	BRL	mg/Kg	1	20.3		
>C28-C35	TPH-1005-4	BRL	mg/Kg	1	17.7		
Total C6-C35		BRL	mg/Kg	1			
Chlorooctadecane(surr)	3386-33-2	84.3	%	1	60-150		
1-Chlorooctane(surr)	111-85-3	80.2	%	1	60-143		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	475	95	500	455	91	4.3	20	75-125	
>C12-C28	500	519	104	500	484	96.8	7	20	75-125	
>C28-C35	500	498	99.6	500	495	99	0.6	20	75-125	

QC Type: MS and MSD
QC Sample ID: 18010310.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	462	92.4	500	494	98.8	6.7	20	75-125	
>C12-C28	BRL	500	512	102	500	550	110	7.2	20	75-125	
>C28-C35	BRL	500	511	102	500	547	109	6.8	20	75-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **TCLP Metals, Mercury** **Method :** **SW-846 7470A** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011040 **Created Date :** 01/10/18 **Created By :** BRena

Samples in This QC Batch : 18010244.01,02

Digestion :	PB18011017	**Prep Method :**	SW-846 7470A	**Prep Date :**	01/10/18 09:20	**Prep By :**	BRena
TCLP Prep :	PB18010802	**Prep Method :**	SW-846 1311	**Prep Date :**	01/05/18 17:00	**Prep By :**	OHalili

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Mercury	7439-97-6	BRL	mg/L	1	0.0005		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Mercury	0.005	0.0052	104	0.005	0.0053	105	1.5	20.5	78-117	

QC Type: MS and MSD
QC Sample ID: 18010275.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Mercury	BRL	0.005	0.0051	103						80-120	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011068 **Created Date :** 01/10/18 **Created By :** Jdongre

Samples in This QC Batch : 18010244.01,02

Sample Preparation : PB18011043 **Prep Method :** SW-846 5030C **Prep Date :** 01/10/18 10:05 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
1,1,1,2-Tetrachloroethane	630-20-6	BRL	mg/L	1	0.005		
1,1,1-Trichloroethane	71-55-6	BRL	mg/L	1	0.005		
1,1,2,2-Tetrachloroethane	79-34-5	BRL	mg/L	1	0.005		
1,1,2-Trichloroethane	79-00-5	BRL	mg/L	1	0.005		
1,1-Dichloroethane	75-34-3	BRL	mg/L	1	0.005		
1,1-Dichloroethylene	75-35-4	BRL	mg/L	1	0.005		
1,1-Dichloropropene	563-58-6	BRL	mg/L	1	0.005		
1,2,3-trichlorobenzene	87-61-6	BRL	mg/L	1	0.005		
1,2,3-Trichloropropane	96-18-4	BRL	mg/L	1	0.005		
1,2,4-Trichlorobenzene	120-82-1	BRL	mg/L	1	0.005		
1,2,4-Trimethylbenzene	95-63-6	BRL	mg/L	1	0.005		
1,2-Dibromo-3-chloropropa	96-12-8	BRL	mg/L	1	0.005		
1,2-Dibromoethane	106-93-4	BRL	mg/L	1	0.006		
1,2-Dichlorobenzene	95-50-1	BRL	mg/L	1	0.005		
1,2-Dichloroethane	107-06-2	BRL	mg/L	1	0.005		
1,2-Dichloropropane	78-87-5	BRL	mg/L	1	0.006		
1,3,5-Trimethylbenzene	108-67-8	BRL	mg/L	1	0.005		
1,3-Dichlorobenzene	541-73-1	BRL	mg/L	1	0.005		
1,3-Dichloropropane	142-28-9	BRL	mg/L	1	0.005		
1,4-Dichlorobenzene	106-46-7	BRL	mg/L	1	0.005		
2,2-Dichloropropane	594-20-7	BRL	mg/L	1	0.005		
2-Chlorotoluene	95-49-8	BRL	mg/L	1	0.005		
4-Chlorotoluene	106-43-4	BRL	mg/L	1	0.005		
4-Isopropyltoluene	99-87-6	BRL	mg/L	1	0.005		
Benzene	71-43-2	BRL	mg/L	1	0.005		
Bromobenzene	108-86-1	BRL	mg/L	1	0.005		
Bromochloromethane	74-97-5	BRL	mg/L	1	0.006		
Bromodichloromethane	75-27-4	BRL	mg/L	1	0.006		
Bromoform	75-25-2	BRL	mg/L	1	0.005		
Bromomethane	74-83-9	BRL	mg/L	1	0.005		
Carbon tetrachloride	56-23-5	BRL	mg/L	1	0.006		
Chlorobenzene	108-90-7	BRL	mg/L	1	0.005		
Chloroethane	75-00-3	BRL	mg/L	1	0.006		
Chloroform	67-66-3	BRL	mg/L	1	0.006		
Chloromethane	74-87-3	BRL	mg/L	1	0.005		
cis-1,2-Dichloroethylene	156-59-2	BRL	mg/L	1	0.005		
cis-1,3-Dichloropropene	10061-01-5	BRL	mg/L	1	0.006		
Dibromochloromethane	124-48-1	BRL	mg/L	1	0.005		
Dibromomethane	74-95-3	BRL	mg/L	1	0.005		
Dichlorodifluoromethane	75-71-8	BRL	mg/L	1	0.006		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011068 **Created Date :** 01/10/18 **Created By :** Jdongre

Samples in This QC Batch : 18010244.01,02

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Ethylbenzene	100-41-4	BRL	mg/L	1	0.005		
Isopropylbenzene	98-82-8	BRL	mg/L	1	0.005		
m- & p-Xylenes	108-38-3&106-42-3	BRL	mg/L	1	0.01		
MEK	78-93-3	BRL	mg/L	1	0.005		
Methylene chloride	75-09-2	BRL	mg/L	1	0.005		
Naphthalene	91-20-3	BRL	mg/L	1	0.005		
n-Butylbenzene	104-51-8	BRL	mg/L	1	0.005		
n-Propylbenzene	103-65-1	BRL	mg/L	1	0.005		
o-Xylene	95-47-6	BRL	mg/L	1	0.005		
sec-Butylbenzene	135-98-8	BRL	mg/L	1	0.005		
Styrene	100-42-5	BRL	mg/L	1	0.005		
t-butylbenzene	98-06-6	BRL	mg/L	1	0.005		
Tetrachloroethylene	127-18-4	BRL	mg/L	1	0.006		
Toluene	108-88-3	BRL	mg/L	1	0.005		
trans-1,2-Dichloroethylene	156-60-5	BRL	mg/L	1	0.005		
trans-1,3-Dichloropropene	10061-02-6	BRL	mg/L	1	0.005		
Trichloroethylene	79-01-6	BRL	mg/L	1	0.005		
Trichlorofluoromethane	75-69-4	BRL	mg/L	1	0.005		
Vinyl Chloride	75-01-4	BRL	mg/L	1	0.005		
Xylenes	1330-20-7	BRL	mg/L	1	0.015		
Dibromofluoromethane(surr	1868-53-7	98.3	%	1	70-130		
1,2-Dichloroethane-d4(surr	17060-07-0	101	%	1	70-130		
Toluene-d8(surr)	2037-26-5	101	%	1	70-130		
p-Bromofluorobenzene(surr	460-00-4	103	%	1	70-130		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.021	105	0.02	0.02	100	4.9	12	82.6-121	
1,1,1-Trichloroethane	0.02	0.02	100	0.02	0.019	95	5.1	13	82.8-123	
1,1,2,2-Tetrachloroethane	0.02	0.019	95	0.02	0.02	100	5.1	20	77.5-122	
1,1,2-Trichloroethane	0.02	0.02	100	0.02	0.02	100	0.0	14	81.1-119	
1,1-Dichloroethane	0.02	0.02	100	0.02	0.019	95	5.1	12	74.5-125	
1,1-Dichloroethylene	0.02	0.019	95	0.02	0.018	90	5.4	12	75.4-124	
1,1-Dichloropropene	0.02	0.02	100	0.02	0.019	95	5.1	12	76.9-125	
1,2,3-trichlorobenzene	0.02	0.021	105	0.02	0.021	105	0.0	20	70.8-125	
1,2,3-Trichloropropane	0.02	0.019	95	0.02	0.021	105	10	22	69.6-126	
1,2,4-Trichlorobenzene	0.02	0.022	110	0.02	0.022	110	0.0	16	74.8-121	
1,2,4-Trimethylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	12	80.4-114	
1,2-Dibromo-3-chloropropa	0.02	0.018	90	0.02	0.02	100	10.5	27	61.7-140	
1,2-Dibromoethane	0.02	0.02	100	0.02	0.021	105	4.9	15	80.6-118	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011068 **Created Date :** 01/10/18 **Created By :** Jdongre

Samples in This QC Batch : 18010244.01,02

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2-Dichlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	82.6-113	
1,2-Dichloroethane	0.02	0.019	95	0.02	0.019	95	0.0	14	72.8-126	
1,2-Dichloropropane	0.02	0.02	100	0.02	0.02	100	0.0	13	82.4-120	
1,3,5-Trimethylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	10	81.3-114	
1,3-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	11	83.4-113	
1,3-Dichloropropane	0.02	0.02	100	0.02	0.02	100	0.0	16	79.8-115	
1,4-Dichlorobenzene	0.02	0.021	105	0.02	0.021	105	0.0	11	82.6-113	
2,2-Dichloropropane	0.02	0.02	100	0.02	0.02	100	0.0	15	69.4-131	
2-Chlorotoluene	0.02	0.022	110	0.02	0.02	100	9.5	17	77.8-118	
4-Chlorotoluene	0.02	0.022	110	0.02	0.021	105	4.7	15	78.8-117	
4-Isopropyltoluene	0.02	0.023	115	0.02	0.021	105	9.1	11	80.9-114	L1
Benzene	0.02	0.019	95	0.02	0.019	95	0.0	11	84.1-118	
Bromobenzene	0.02	0.021	105	0.02	0.021	105	0.0	12	82.8-116	
Bromochloromethane	0.02	0.02	100	0.02	0.019	95	5.1	15	70.7-131	
Bromodichloromethane	0.02	0.019	95	0.02	0.019	95	0.0	12	83.1-119	
Bromoform	0.02	0.019	95	0.02	0.019	95	0.0	20	70.3-136	
Bromomethane	0.02	0.016	80	0.02	0.015	75	6.5	23	59-134	
Carbon tetrachloride	0.02	0.019	95	0.02	0.018	90	5.4	13	74.6-129	
Chlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	87.8-110	
Chloroethane	0.02	0.018	90	0.02	0.017	85	5.7	13	73.7-124	
Chloroform	0.02	0.02	100	0.02	0.019	95	5.1	10	76.4-124	
Chloromethane	0.02	0.018	90	0.02	0.018	90	0.0	15	59.4-138	
cis-1,2-Dichloroethylene	0.02	0.02	100	0.02	0.019	95	5.1	15	74.3-124	
cis-1,3-Dichloropropene	0.02	0.02	100	0.02	0.02	100	0.0	11	84.6-117	
Dibromochloromethane	0.02	0.02	100	0.02	0.02	100	0.0	13	80.3-122	
Dibromomethane	0.02	0.02	100	0.02	0.02	100	0.0	16	75.8-126	
Dichlorodifluoromethane	0.02	0.012	60	0.02	0.011	55	8.7	15	44.4-149	
Ethylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	12	82.8-114	
Isopropylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	11	86.8-113	
m- & p-Xylenes	0.04	0.044	110	0.04	0.042	105	4.7	10	76.9-122	
MEK	0.02	0.018	90	0.02	0.022	110	20	42	44.9-154	
Methylene chloride	0.02	0.022	110	0.02	0.022	110	0.0	13	67.3-130	
Naphthalene	0.02	0.021	105	0.02	0.021	105	0.0	27	55.8-136	
n-Butylbenzene	0.02	0.023	115	0.02	0.021	105	9.1	20	74.1-120	
n-Propylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	12	78.9-115	
o-Xylene	0.02	0.022	110	0.02	0.022	110	4.4	11	86-111	
sec-Butylbenzene	0.02	0.023	115	0.02	0.021	105	9.1	12	80.2-115	
Styrene	0.02	0.021	105	0.02	0.02	100	4.9	12	86.7-111	
t-butylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	14	80.7-116	
Tetrachloroethylene	0.02	0.021	105	0.02	0.021	105	0.0	27	64.2-140	
Toluene	0.02	0.021	105	0.02	0.02	100	4.9	12	85.9-110	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011068 **Created Date :** 01/10/18 **Created By :** Jdongre

Samples in This QC Batch : 18010244.01,02

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
trans-1,2-Dichloroethylene	0.02	0.019	95	0.02	0.019	95	0.0	12	73.7-124	
trans-1,3-Dichloropropene	0.02	0.02	100	0.02	0.02	100	0.0	14	83-114	
Trichloroethylene	0.02	0.02	100	0.02	0.02	100	0.0	12	85.4-114	
Trichlorofluoromethane	0.02	0.017	85	0.02	0.016	80	6.1	12	74.3-126	
Vinyl Chloride	0.02	0.016	80	0.02	0.015	75	6.5	17	61.8-142	
Xylenes	0.06	0.067	112	0.06	0.064	107	4.6	9	81.2-117	

QC Type: MS and MSD
QC Sample ID: 18010394.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.02	100						72-139	
1,1,1-Trichloroethane	BRL	0.02	0.02	100						70.6-135	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.022	110						55-149	
1,1,2-Trichloroethane	BRL	0.02	0.022	110						68-139	
1,1-Dichloroethane	BRL	0.02	0.02	100						78-134	
1,1-Dichloroethylene	BRL	0.02	0.019	95						65-141	
1,1-Dichloropropene	BRL	0.02	0.021	105						79-136	
1,2,3-trichlorobenzene	BRL	0.02	0.023	115						54-144	
1,2,3-Trichloropropane	BRL	0.02	0.024	120						58-156	
1,2,4-Trichlorobenzene	BRL	0.02	0.023	115						69-127	
1,2,4-Trimethylbenzene	BRL	0.02	0.022	110						80-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.024	120						61-145	
1,2-Dibromoethane	BRL	0.02	0.022	110						68-140	
1,2-Dichlorobenzene	BRL	0.02	0.021	105						70-138	
1,2-Dichloroethane	BRL	0.02	0.02	100						67-152	
1,2-Dichloropropane	BRL	0.02	0.021	105						79-135	
1,3,5-Trimethylbenzene	BRL	0.02	0.022	110						79-133	
1,3-Dichlorobenzene	BRL	0.02	0.021	105						79-128	
1,3-Dichloropropane	BRL	0.02	0.021	105						70-147	
1,4-Dichlorobenzene	BRL	0.02	0.022	110						76-127	
2,2-Dichloropropane	BRL	0.02	0.021	105						60-129	
2-Chlorotoluene	BRL	0.02	0.022	110						83-130	
4-Chlorotoluene	BRL	0.02	0.022	110						82-129	
4-Isopropyltoluene	BRL	0.02	0.022	110						78-129	
Benzene	BRL	0.02	0.02	100						73-129	
Bromobenzene	BRL	0.02	0.022	110						76-132	
Bromochloromethane	BRL	0.02	0.021	105						76-135	
Bromodichloromethane	BRL	0.02	0.02	100						80-136	
Bromoform	BRL	0.02	0.021	105						65-139	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 18010244 **Date :** 1/11/2018

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb18011068 **Created Date :** 01/10/18 **Created By :** Jdongre

Samples in This QC Batch : 18010244.01,02

QC Type: MS and MSD
QC Sample ID: 18010394.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Bromomethane	BRL	0.02	0.016	80						65-150	
Carbon tetrachloride	BRL	0.02	0.02	100						70-136	
Chlorobenzene	BRL	0.02	0.021	105						69-123	
Chloroethane	BRL	0.02	0.018	90						74-145	
Chloroform	BRL	0.02	0.02	100						41.8-164	
Chloromethane	BRL	0.02	0.018	90						42.2-160	
cis-1,2-Dichloroethylene	BRL	0.02	0.02	100						71-134	
cis-1,3-Dichloropropene	BRL	0.02	0.021	105						74-128	
Dibromochloromethane	BRL	0.02	0.02	100						67-141	
Dibromomethane	BRL	0.02	0.022	110						63.1-135	
Dichlorodifluoromethane	BRL	0.02	0.01	50						62-146	M9
Ethylbenzene	BRL	0.02	0.022	110						80-132	
Isopropylbenzene	BRL	0.02	0.021	105						78-137	
m- & p-Xylenes	BRL	0.04	0.042	105						74-127	
MEK	BRL	0.02	0.029	145						52-148	
Methylene chloride	BRL	0.02	0.027	135						68-131	M8
Naphthalene	BRL	0.02	0.025	125						61-116	M8
n-Butylbenzene	BRL	0.02	0.023	115						73-140	
n-Propylbenzene	BRL	0.02	0.022	110						75-127	
o-Xylene	BRL	0.02	0.022	110						74-126	
sec-Butylbenzene	BRL	0.02	0.022	110						75-129	
Styrene	BRL	0.02	0.021	105						77-123	
t-butylbenzene	BRL	0.02	0.022	110						75-126	
Tetrachloroethylene	BRL	0.02	0.025	125						27.6-194	
Toluene	BRL	0.02	0.021	105						72-121	
trans-1,2-Dichloroethylene	BRL	0.02	0.02	100						73-138	
trans-1,3-Dichloropropene	BRL	0.02	0.021	105						66-131	
Trichloroethylene	BRL	0.02	0.021	105						6-138	
Trichlorofluoromethane	BRL	0.02	0.017	85						67-148	
Vinyl Chloride	BRL	0.02	0.015	75						59.4-140	
Xylenes	BRL	0.06	0.064	107						73-127	

Refer to the Definition page for terms.

A.& B Labs — *Chain of Custody*

The Chain of Custody is a Legal Document

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 18010244

5. Project #

1. REPORT TO:
Company:
Address: Air & Waste Engineering, Inc.
P. O. Box 16211
Sugar Land, TX 77496-6211
Contact: Bill Smalling
Phone: 281-455-6569
Fax: ☐
E-mail: ☒ bsmalling@airandwasteengineering.com

2. INVOICE TO:
Company:
Address: Air & Waste Engineering, Inc.
P. O. Box 16211
Sugar Land, TX 77496-6211
Contact: Bill Smalling
Phone:
Fax: ☐
E-mail: ☐

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☐ Other:
☐ 2 Days*
☒ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location
7012 Banyan

7. Reporting Requirement:
☐ TRRP Limits only ☐ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☐ EDD

8. Sampler's Name & Company (PLEASE PRINT): Air & Waste Engineering / Bill Smalling
Sampler's Signature & Date: B Smalling 1/5/2018

13. 14. Containers*
15. Preservatives**
16. PH-Lab Only

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	Time 24hr	11. Comp.	Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	17. Analyses/Methods: VOC	SVOC	TPH	RCRA 8 Metals - TCLP	18. REMARKS
01B	11	01/05/2018	1310		X								2	X	X	X	X	
02A	12	01/05/2018	1315		X								1	X		X	X	

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1 Bill Smalling	01/05/2018	1351	[signature]	1518	1351
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 5.3 0.1 5.2c
Thermometer ID 1707629
Intact: Y or N Initials AH

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other

**Preservatives: C - Cool; OH - NaOH; H - HCl; T - $NA_2S_2O_3$; N - HNO_3; X - Other; S - H_2SO_4

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING ____ RENTAL ____ P/U ____ Supplies ____ Field Work ____

Sample Condition Checklist

A&B JobID : **18010244**	Date Received : **01/05/2018**	Time Received : **1:51PM**
Client Name : **Air & Waste Engineering, Inc.**		
Temperature : **5.3-0.1cf=5.2°C**	Sample pH : **n/a**	
Thermometer ID : **1707629**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** Water ☐ Soil ☐ Liquid ☑ Sludge ☐ Solid ☐ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Received by : AHall

Check in by/date : AHall / 01/05/2018