DATA USABILITY SUMMARY REPORT

TOWNLEY HILL ROAD SITE

SOIL SAMPLES COLLECTED
8/7/2013 thru 9/6/2013

SDG 23955, 24173, 24278, 24554, 24558, 24645, 24883, 24960
Total Cadmium, Total Lead
TCLP Cadmium, TCLP Lead

Prepared for:

CUMMINGS-RITER CONSULTANTS, INC.
300 Penn Center Blvd.
Pittsburgh, PA 15235

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 23955
Sampled 08/07/2013

TOTAL CADMIUM and LEAD

FDDA-Q5/Q6-1S	(23955-1)	FDDA-Q6/Q7-1S	(23955-2)
FDDA-Q6/Q7-2S	(23955-3)	FDDA-1FLR	(23955-4)
FDDA-2FLR	(23955-5)	FDDA-Q6/Q7-3S	(23955-6)
FDDA-Q5/Q4-1S	(23955-7)	FDDA-Q5/Q4-2S	(23955-8)
DUP-1	(23955-9)		

DATA ASSESSMENT

An inorganics data package containing analytical results for nine soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

CORRECTNESS AND USABILITY

The data reported from this group of samples should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 02 OCT 13

James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained nine soil samples that were collected from the Townley Hill Road site on 07Aug13. They were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The shipment of samples was found to be intact and packed with ice at the time of receipt.

The samples from this delivery group were digested on 09Aug13 and analyzed for cadmium and lead on 12Aug13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

FDDA-1FLR was selected for matrix spiking. The required targeted analytes were added to two portions of this sample. The recoveries reported for these additions demonstrated acceptable levels of measurement precision and accuracy.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Although a field duplicate sample was included in this delivery group, it was not identified.

It is noted that the spiked duplicates of FDDA-1FLR demonstrated and acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

A soil spiked blank (LCS) was digested and analyzed this delivery group. This LCS produced excellent recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

FDDA-1FLR was prepared as a serial dilution. Of the analytes present in the original sample, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 7, 2013

FDDA-Q5/Q6-1S (23955-1)
FDDA-Q6/Q7-1S (23955-2)
FDDA-Q6/Q7-2S (23955-3)
FDDA-1FLR (23955-4)
FDDA-2FLR (23955-5)
FDDA-Q6/Q7-3S (23955-6)
FDDA-Q5/Q4-1S (23955-7)
FDDA-Q5/Q4-2S (23955-8)
DUP-1 (23955-9)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: FDDA-Q5/Q6-1S

Lab Sample ID: 180-23955-1

Lab Name: TestAmerica Pittsburgh

Job No.: 180-23955-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/07/2013 14:45

Reporting Basis: DRY

Date Received: 08/08/2013 12:10

% Solids: 84.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.034	0.57	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	7.4	0.34	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q6/Q7-1S
Lab Sample ID: 180-23955-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/07/2013 14:51
Reporting Basis: DRY
Date Received: 08/08/2013 12:10
% Solids: 85.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.12	0.59	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.35	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q6/Q7-2S
Lab Sample ID: 180-23955-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/07/2013 14:56
Reporting Basis: DRY
Date Received: 08/08/2013 12:10
% Solids: 83.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.050	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	6.4	0.34	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-1FLR
Lab Sample ID: 180-23955-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/07/2013 15:00
Reporting Basis: DRY
Date Received: 08/08/2013 12:10
% Solids: 81.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.29	0.59	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	7.6	0.35	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-2FLR
Lab Sample ID: 180-23955-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/07/2013 15:19
Reporting Basis: DRY
Date Received: 08/08/2013 12:10
% Solids: 79.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	21	0.60	0.029	mg/Kg			1	6010B
7439-92-1	Lead	16	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q6/Q7-3S
Lab Sample ID: 180-23955-6

Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1

SDG ID.:

Matrix: Solid
Date Sampled: 08/07/2013 15:35

Reporting Basis: DRY
Date Received: 08/08/2013 12:10

% Solids: 81.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.77	0.60	0.029	mg/Kg			1	6010B
7439-92-1	Lead	13	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q5/Q4-1S
Lab Sample ID: 180-23955-7

Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1

SDG ID.:

Matrix: Solid
Date Sampled: 08/07/2013 15:40

Reporting Basis: DRY
Date Received: 08/08/2013 12:10

% Solids: 75.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.3	0.65	0.031	mg/Kg			1	6010B
7439-92-1	Lead	18	0.39	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q5/Q4-2S
Lab Sample ID: 180-23955-8
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/07/2013 15:55
Reporting Basis: DRY
Date Received: 08/08/2013 12:10
% Solids: 78.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	9.6	0.63	0.030	mg/Kg			1	6010B
7439-92-1	Lead	16	0.38	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP 1 | Lab Sample ID: 180-23955-9

Lab Name: TestAmerica Pittsburgh | Job No.: 180-23955-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/07/2013 00:00

Reporting Basis: DRY | Date Received: 08/08/2013 12:10

% Solids: 80.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.15	0.62	0.030	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.37	0.18	mg/Kg			1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00087

Analyte	ICV 180-80267/5 08/12/2013 05:04				CCV 180-80267/11 08/12/2013 05:36				CCV 180-80267/67 08/12/2013 10:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	240		250	96	482		500	96	498		500	100
Lead	244		250	98	490		500	98	504		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00087

Analyte	CCV 180-80267/79 08/12/2013 11:52				CCV 180-80267/85 08/12/2013 12:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	501		500	100	503		500	101				
Lead	507		500	101	509		500	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-80267/6 08/12/2013 05:09		CCB1 180-80267/12 08/12/2013 05:41		CCB6 180-80267/68 08/12/2013 10:54		CCB7 180-80267/80 08/12/2013 11:57	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	0.220	J	0.130	J	0.330	J	0.150	J
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB8 180-80267/86 08/12/2013 12:30							
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	0.310	J						
Lead	3.0	3.0	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-80080/1-A

Instrument Code: T Batch No.: 80267

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.47	U		6010B
7439-92-1	Lead	0.28	U		6010B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

Lab Sample ID: ICSA 180-80267/9 Instrument ID: T

Lab File ID: T30812A ICS Source: MICSAICP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**0.540**	
Lead		**0.370**	
Aluminum	*500000*	*495655*	*99*
Antimony		*-0.500*	
Arsenic		*-0.0100*	
Barium		*1.31*	
Beryllium		*-0.420*	
Boron		*-0.350*	
Calcium	*500000*	*488052*	*98*
Chromium		*-0.290*	
Cobalt		*0.210*	
Copper		*-5.07*	
Iron	*200000*	*196750*	*98*
Magnesium	*500000*	*518373*	*104*
Manganese		*0.400*	
Molybdenum		*-0.940*	
Nickel		*1.37*	
Potassium		*190*	
Selenium		*6.05*	
Silicon		*10.8*	
Silver		*-0.330*	
Sodium		*-268*	
Strontium		*16.7*	
Thallium		*5.46*	
Tin		*6.97*	
Titanium		*-2.30*	
Vanadium		*2.97*	
Zinc		*0.220*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

SDG No.:

Lab Sample ID: ICSAB 180-80267/10 Instrument ID: T

Lab File ID: T30812A ICS Source: MICSAB_00036

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Cadmium	**1000**	**910**	**91**
Lead	**1000**	**925**	**92**
Aluminum	*500000*	*493990*	*99*
Antimony	*1000*	*1002*	*100*
Arsenic	*1000*	*977*	*98*
Barium	*500*	*523*	*105*
Beryllium	*500*	*485*	*97*
Boron	*1000*	*1022*	*102*
Calcium	*500000*	*487677*	*98*
Chromium	*500*	*483*	*97*
Cobalt	*500*	*465*	*93*
Copper	*500*	*522*	*104*
Iron	*200000*	*197265*	*99*
Magnesium	*500000*	*516591*	*103*
Manganese	*500*	*485*	*97*
Molybdenum	*1000*	*988*	*99*
Nickel	*1000*	*910*	*91*
Potassium	*10000*	*9509*	*95*
Selenium	*1000*	*965*	*96*
Silicon	*1000*	*999*	*100*
Silver	*1000*	*1046*	*105*
Sodium	*10000*	*10852*	*109*
Strontium	*1000*	*1028*	*103*
Thallium	*1000*	*962*	*96*
Tin	*1000*	*977*	*98*
Titanium	*1000*	*996*	*100*
Vanadium	*500*	*494*	*99*
Zinc	*1000*	*1005*	*101*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: FDDA-1FLR MS
Lab ID: 180-23955-4 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 81.3

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	5.77		0.29	J	6.03	91	75-125		6010B
Lead	65.1		7.6		60.3	95	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: FDDA-1FLR MSD
Lab ID: 180-23955-4 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-23955-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 81.3

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	5.91	6.03	93	75-125	2	20		6010B
Lead	66.3	60.3	97	75-125	2	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-80080/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-23955-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.90	4.71		96	80	120		6010B
Lead	49.0	47.1		96	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-23955-4

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-23955-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	0.29	J	0.390	J	NC		6010B
Lead	7.6		7.81		NC		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24137
Sampled 08/13/2013

TOTAL CADMIUM and LEAD

FDDA-2FLRA (24137-1)

DATA ASSESSMENT

An inorganics data package containing analytical results for one soil sample was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The sample, taken from the Townley Hill Road Site, was identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

CORRECTNESS AND USABILITY

The data reported from this group of samples should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 02Oct13

James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained one soil sample that was collected from the Townley Hill Road site on 13Aug13. It was shipped to the laboratory, via FedEx, on the day of collection and was received the next morning. The sample shipment was found to be intact and packed with ice at the time of receipt.

FDDA-2FLRA was digested on 14Aug13 and analyzed for cadmium and lead on 15Aug13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

Matrix spiked samples were not prepared with this delivery group.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

A pair of soil spiked blanks (LCS/LCSD) was digested and analyzed this delivery group. This LCS pair demonstrated acceptable levels of measurement accuracy and precision.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

FDDA-2FLRA was prepared as a serial dilution. Of the analytes present in the original sample, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 13, 2013

FDDA-2FLRA (24137-1)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-2FLRA
Lab Sample ID: 180-24137-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/13/2013 16:55
Reporting Basis: DRY
Date Received: 08/14/2013 08:50
% Solids: 84.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.1	0.58	0.028	mg/Kg			1	6010B
7439-92-1	Lead	7.8	0.35	0.17	mg/Kg			1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00087

Analyte	ICV 180-80642/5 08/15/2013 04:57				CCV 180-80642/11 08/15/2013 05:31				CCV 180-80642/32 08/15/2013 07:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	247		250	99	501		500	100	512		500	102
Lead	250		250	100	506		500	101	516		500	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00087

Analyte	CCV 180-80642/44 08/15/2013 08:28											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	508		500	102								
Lead	513		500	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-80642/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00031

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.29		106	50-150
Lead	3.00	3.07		102	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-80642/6 08/15/2013 05:02		CCB1 180-80642/12 08/15/2013 05:37		CCB3 180-80642/33 08/15/2013 07:29		CCB4 180-80642/45 08/15/2013 08:33	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	0.150	J	5.0	U
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-80512/1-A

Instrument Code: T Batch No.: 80642

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.47	U		6010B
7439-92-1	Lead	0.28	U		6010B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

Lab Sample ID: ICSA 180-80642/9 Instrument ID: T

Lab File ID: T30815A ICS Source: MICSAICP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**-0.240**	
Lead		**-2.53**	
Aluminum	*500000*	*489503*	*98*
Antimony		*1.17*	
Arsenic		*-0.600*	
Barium		*1.25*	
Beryllium		*-0.170*	
Boron		*-0.860*	
Calcium	*500000*	*484717*	*97*
Chromium		*0.0000*	
Cobalt		*0.0700*	
Copper		*-4.88*	
Iron	*200000*	*195009*	*98*
Magnesium	*500000*	*514942*	*103*
Manganese		*0.570*	
Molybdenum		*1.12*	
Nickel		*1.82*	
Potassium		*217*	
Selenium		*1.45*	
Silicon		*8.90*	
Silver		*0.0300*	
Sodium		*-816*	
Strontium		*16.6*	
Thallium		*3.84*	
Tin		*2.90*	
Titanium		*-2.23*	
Vanadium		*2.92*	
Zinc		*0.450*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

SDG No.:

Lab Sample ID: ICSAB 180-80642/10 Instrument ID: T

Lab File ID: T30815A ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Cadmium	**1000**	**929**	**93**
Lead	**1000**	**943**	**94**
Aluminum	*500000*	*491109*	*98*
Antimony	*1000*	*1009*	*101*
Arsenic	*1000*	*999*	*100*
Barium	*500*	*519*	*104*
Beryllium	*500*	*489*	*98*
Boron	*1000*	*1020*	*102*
Calcium	*500000*	*483418*	*97*
Chromium	*500*	*484*	*97*
Cobalt	*500*	*468*	*94*
Copper	*500*	*516*	*103*
Iron	*200000*	*195165*	*98*
Magnesium	*500000*	*511585*	*102*
Manganese	*500*	*487*	*97*
Molybdenum	*1000*	*992*	*99*
Nickel	*1000*	*919*	*92*
Potassium	*10000*	*9653*	*97*
Selenium	*1000*	*986*	*99*
Silicon	*1000*	*1011*	*101*
Silver	*1000*	*1046*	*105*
Sodium	*10000*	*10705*	*107*
Strontium	*1000*	*1025*	*103*
Thallium	*1000*	*959*	*96*
Tin	*1000*	*982*	*98*
Titanium	*1000*	*997*	*100*
Vanadium	*500*	*495*	*99*
Zinc	*1000*	*1007*	*101*

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

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-80512/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.67	4.50		96	80	120		6010B
Lead	46.7	44.8		96	80	120		6010B

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

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 180-80512/3-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24137-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	(SDR) C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	4.85	5.00	97	80-120	8	20		6010B
Lead	48.6	50.0	97	80-120	8	20		6010B

SDR = Spike Duplicate Results

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

FORM VIID - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24137-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24137-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	1.1		1.18	J	NC		6010B
Lead	7.8		7.74		NC		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24278
Sampled 08/16/2013

TOTAL CADMIUM and LEAD

TP5-X1/X5-1S	(24278-1)	TP5-X1/X2-1S	(24278-2)
TP5-X2/X3-1S	(24278-3)	TP5-X3/X4-1S	(24278-4)
TP5-X4/X5-1S	(24278-5)	TP5-X4/X5-2S	(24278-6)
TP5-1 FLR	(24278-7)	TP5-2 FLR	(24278-8)
DUP2	(24278-9)		

DATA ASSESSMENT

An inorganics data package containing analytical results for nine soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

The cadmium results reported from this delivery group have been qualified as estimations due to high matrix spike recoveries.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 02 Oct 13
James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained nine soil samples that were collected from the Townley Hill Road site on 16Aug13. They were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The shipment of samples was found to be intact and packed with ice at the time of receipt.

The samples from this delivery group were digested on 19Aug13 and analyzed for cadmium and lead on 20Aug13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in

the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

TP5-X3/X4-1S was selected for matrix spiking. The required targeted analytes were added to two portions of this sample. The recoveries reported for these additions included unacceptably high results for cadmium (127%,232%). The cadmium results from this group of samples have been qualified as estimations based on these indications of positive bias. Acceptable recoveries were reported for lead.

In addition to the observed positive bias, the recoveries reported for cadmium indicate poor measurement precision. This may be due to a non-homogeneous sample matrix.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Although a field duplicate sample was included in this delivery group, it was not identified.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

A soil spiked blank (LCS) was digested and analyzed this delivery group. This LCS produced excellent recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

TP5-X3/X4-1S was prepared as a serial dilution. Of the analytes present in the original sample, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 16, 2013

		SPIKES CADMIUM
TP5-X1/X5-1S	(24278-1)	0.24J
TP5-X1/X2-1S	(24278-2)	0.65J
TP5-X2/X3-1S	(24278-3)	1.6J
TP5-X3/X4-1S	(24278-4)	7.4J
TP5-X4/X5-1S	(24278-5)	0.31J
TP5-X4/X5-2S	(24278-6)	1.6J
TP5-1 FLR	(24278-7)	0.46J
TP5-2 FLR	(24278-8)	0.30J
DUP2	(24278-9)	5.4J

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X1/X5-1S
Lab Sample ID: 180-24278-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:05
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 87.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.24	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.33	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X1/X2-1S
Lab Sample ID: 180-24278-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:10
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 85.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.65	0.55	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	12	0.33	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X2/X3-1S
Lab Sample ID: 180-24278-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:15
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 80.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.6	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	24	0.36	0.17	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X3/X4-1S
Lab Sample ID: 180-24278-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:20
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 87.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	7.4	0.55	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.33	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X4/X5-1S
Lab Sample ID: 180-24278-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:30
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 86.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.31	0.58	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	12	0.35	0.17	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-X4/X5-2S
Lab Sample ID: 180-24278-6
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:35
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 85.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.6	0.58	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	17	0.35	0.17	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP5-1 FLR
Lab Sample ID: 180-24278-7
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/16/2013 08:40
Reporting Basis: DRY
Date Received: 08/17/2013 09:10
% Solids: 87.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.46	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.33	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: TP5-2 FLR

Lab Sample ID: 180-24278-8

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24278-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/16/2013 08:45

Reporting Basis: DRY

Date Received: 08/17/2013 09:10

% Solids: 87.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.30	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.33	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP 2 | Lab Sample ID: 180-24278-9

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24278-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/16/2013 00:00

Reporting Basis: DRY | Date Received: 08/17/2013 09:10

% Solids: 88.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	5.4	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	13	0.33	0.16	mg/Kg		B	1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00088

Analyte	ICV 180-81085/5 08/20/2013 05:21				CCV 180-81085/11 08/20/2013 05:53				CCV 180-81085/23 08/20/2013 06:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	248		250	99	500		500	100	496		500	99
Lead	254		250	102	507		500	101	505		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

ICV Source: MICV1_00028 Concentration Units: ug/L

CCV Source: MCCV1_00088

Analyte	CCV 180-81085/35 08/20/2013 08:00											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	493		500	99								
Lead	501		500	100								

Note: Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-81085/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00032

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.08		102	50-150
Lead	3.00	4.15		138	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Job Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-81085/6 08/20/2013 05:26		CCB1 180-81085/12 08/20/2013 05:58		CCB2 180-81085/24 08/20/2013 07:02		CCB3 180-81085/36 08/20/2013 08:06	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Lead	3.0	3.0	U	3.0	U	1.53	J	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-80950/1-A

Instrument Code: T Batch No.: 81085

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.48	U		6010B
7439-92-1	Lead	0.208	J		6010B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

Lab Sample ID: ICSA 180-81085/9 Instrument ID: T

Lab File ID: T30820A ICS Source: MICSAICP 00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Cadmium		**0.370**	
Lead		**-1.02**	
Aluminum	*500000*	*495379*	*99*
Antimony		*0.610*	
Arsenic		*0.810*	
Barium		*1.21*	
Beryllium		*-0.420*	
Boron		*-0.750*	
Calcium	*500000*	*497894*	*100*
Chromium		*0.0000*	
Cobalt		*-0.130*	
Copper		*-4.62*	
Iron	*200000*	*200369*	*100*
Magnesium	*500000*	*529158*	*106*
Manganese		*0.660*	
Molybdenum		*-0.230*	
Nickel		*1.06*	
Potassium		*185*	
Selenium		*6.09*	
Silicon		*12.4*	
Silver		*-0.120*	
Sodium		*-656*	
Strontium		*16.7*	
Thallium		*5.73*	
Tin		*4.49*	
Titanium		*-2.26*	
Vanadium		*1.30*	
Zinc		*0.870*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

SDG No.:

Lab Sample ID: ICSAB 180-81085/10 Instrument ID: T

Lab File ID: T30820A ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Cadmium	**1000**	**912**	**91**
Lead	**1000**	**928**	**93**
Aluminum	*500000*	*492149*	*98*
Antimony	*1000*	*1006*	*101*
Arsenic	*1000*	*979*	*98*
Barium	*500*	*522*	*104*
Beryllium	*500*	*481*	*96*
Boron	*1000*	*1019*	*102*
Calcium	*500000*	*483806*	*97*
Chromium	*500*	*479*	*96*
Cobalt	*500*	*461*	*92*
Copper	*500*	*522*	*104*
Iron	*200000*	*196099*	*98*
Magnesium	*500000*	*512802*	*103*
Manganese	*500*	*482*	*96*
Molybdenum	*1000*	*979*	*98*
Nickel	*1000*	*903*	*90*
Potassium	*10000*	*9531*	*95*
Selenium	*1000*	*966*	*97*
Silicon	*1000*	*1009*	*101*
Silver	*1000*	*1053*	*105*
Sodium	*10000*	*10443*	*104*
Strontium	*1000*	*1024*	*102*
Thallium	*1000*	*946*	*95*
Tin	*1000*	*966*	*97*
Titanium	*1000*	*990*	*99*
Vanadium	*500*	*489*	*98*
Zinc	*1000*	*1001*	*100*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: TP5-X3/X4-1S/MS MS
Lab ID: 180-24278-4 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 87.8

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	14.4	7.4	5.53	127	75-125	F	6010B
Lead	62.8	11	55.3	95	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: TP5-X3/X4-1S/MSD MSD
Lab ID: 180-24278-4 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24278-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 87.8

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	20.3	5.58	232	75-125	34	20	F	6010B
Lead	61.7	55.8	92	75-125	2	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-80950/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24278-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.90	4.53		92	80	120		6010B
Lead	49.0	45.5		93	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24278-4

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24278-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	7.4		7.84		6.3		6010B
Lead	11		11.6		9.8		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24554
Sampled 08/27/2013

TOTAL CADMIUM and LEAD

FDDA-Q7/Q8-4S	(24554-01)	FDDA-Q7/Q8-5S	(24554-02)
FDDA-A1-1FLR	(24554-03)	FDDA-A2-1FLR	(24554-04)
FDDA-A3-1FLR	(24554-05)	FDDA-B1-1FLR	(24554-06)
FDDA-C1-1FLR	(24554-07)	FDDA-D1-1FLR	(24554-08)
FDDA-E1-1FLR	(24554-09)	FDDA-Q9/Q10-1S	(24554-10)
TP3-V1/V2	(24554-11)	TP3-V2/V3	(24554-12)
TP3-V3/V4	(24554-13)	TP3-V4/V1	(24554-14)
TP3-1FLR	(24554-15)	FDDA-Q8/Q9-1S	(24554-16)
FDDA-Q8/Q9-2S	(24554-17)	FDDA-Q8/Q9-3S	(24554-18)
FDDA-Q7/Q8-1S	(24554-19)	FDDA-Q7/Q8-2S	(24554-20)
FDDA-Q7/Q8-3S	(24554-21)		

DATA ASSESSMENT

An inorganics data package containing analytical results for twenty-one soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

CORRECTNESS AND USABILITY

The data reported from this group of samples should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 02Oct13

James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained twenty-one soil samples that were collected from the Townley Hill Road site on 27Aug13. They were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The shipment of samples was found to be intact and packed with ice at the time of receipt.

The samples from this delivery group were digested and analyzed for cadmium and lead on 29Aug13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in

the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

FDDA-Q7/Q8-4S and TP3-V3/V4 were selected for matrix spiking. The required targeted analytes were added to two portions of each of these samples. The recoveries reported for these additions demonstrated acceptable levels of measurement precision and accuracy.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicate samples were not included in this delivery group.

It is noted that the spiked duplicates of FDDA-Q7/Q8-4S and TP3-V3/V4 demonstrated and acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two soil spiked blanks (LCS) were digested and analyzed this delivery group. Both of these LCS produced excellent recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample

are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

FDDA-Q7/Q8-4S and TP3-V3/V4 were prepared as serial dilutions. Of the analytes present in the original samples, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 27, 2013

FDDA-Q7/Q8-4S (24554-01)
FDDA-Q7/Q8-5S (24554-02)
FDDA-A1-1FLR (24554-03)
FDDA-A2-1FLR (24554-04)
FDDA-A3-1FLR (24554-05)
FDDA-B1-1FLR (24554-06)
FDDA-C1-1FLR (24554-07)
FDDA-D1-1FLR (24554-08)
FDDA-E1-1FLR (24554-09)
FDDA-Q9/Q10-1S (24554-10)
TP3-V1/V2 (24554-11)
TP3-V2/V3 (24554-12)
TP3-V3/V4 (24554-13)
TP3-V4/V1 (24554-14)
TP3-1FLR (24554-15)
FDDA-Q8/Q9-1S (24554-16)
FDDA-Q8/Q9-2S (24554-17)
FDDA-Q8/Q9-3S (24554-18)
FDDA-Q7/Q8-1S (24554-19)
FDDA-Q7/Q8-2S (24554-20)
FDDA-Q7/Q8-3S (24554-21)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q7/Q8-4S
Lab Sample ID: 180-24554-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:40
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 76.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.2	0.64	0.031	mg/Kg			1	6010B
7439-92-1	Lead	14	0.39	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q7/Q8-5S
Lab Sample ID: 180-24554-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:45
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 81.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.66	0.61	0.029	mg/Kg			1	6010B
7439-92-1	Lead	9.7	0.36	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-A1-1FLR
Lab Sample ID: 180-24554-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 16:05
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 77.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.63	0.63	0.030	mg/Kg	U		1	6010B
7439-92-1	Lead	8.4	0.38	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-A2-IFLR
Lab Sample ID: 180-24554-4

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1

SDG ID.:

Matrix: Solid
Date Sampled: 08/27/2013 16:10

Reporting Basis: DRY
Date Received: 08/28/2013 09:06

% Solids: 83.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.5	0.60	0.029	mg/Kg			1	6010B
7439-92-1	Lead	11	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-A3-1FLR
Lab Sample ID: 180-24554-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 16:15
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 82.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.4	0.60	0.029	mg/Kg			1	6010B
7439-92-1	Lead	20	0.36	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-B1-1FLR
Lab Sample ID: 180-24554-6

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1

SDG ID.:

Matrix: Solid
Date Sampled: 08/27/2013 16:25

Reporting Basis: DRY
Date Received: 08/28/2013 09:06

% Solids: 78.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.72	0.60	0.029	mg/Kg			1	6010B
7439-92-1	Lead	7.6	0.36	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-C1-1FLR
Lab Sample ID: 180-24554-7
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 16:30
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 76.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.9	0.65	0.031	mg/Kg			1	6010B
7439-92-1	Lead	11	0.39	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D1-1FLR
Lab Sample ID: 180-24554-8
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 16:35
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 79.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	12	0.62	0.030	mg/Kg			1	6010B
7439-92-1	Lead	11	0.37	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E1-1FLR
Lab Sample ID: 180-24554-9
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 16:40
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 88.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.13	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	7.8	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q9/Q10-15 Lab Sample ID: 180-24554-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG ID.:

Matrix: Solid Date Sampled: 08/27/2013 16:45

Reporting Basis: DRY Date Received: 08/28/2013 09:06

% Solids: 88.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.13	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	I6	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP3-V1/V2 Lab Sample ID: 180-24554-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG ID.:

Matrix: Solid Date Sampled: 08/27/2013 13:25

Reporting Basis: DRY Date Received: 08/28/2013 09:06

% Solids: 84.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.4	0.58	0.028	mg/Kg			1	6010B
7439-92-1	Lead	16	0.35	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP3-V2/V3 | Lab Sample ID: 180-24554-12

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24554-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/27/2013 13:30

Reporting Basis: DRY | Date Received: 08/28/2013 09:06

% Solids: 76.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.7	0.65	0.031	mg/Kg			1	6010B
7439-92-1	Lead	15	0.39	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP3-V3/V4 | Lab Sample ID: 180-24554-13

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24554-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/27/2013 13:35

Reporting Basis: DRY | Date Received: 08/28/2013 09:06

% Solids: 79.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.0	0.61	0.029	mg/Kg			1	6010B
7439-92-1	Lead	17	0.36	0.18	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP3-V4/V1 Lab Sample ID: 180-24554-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG ID.:

Matrix: Solid Date Sampled: 08/27/2013 13:40

Reporting Basis: DRY Date Received: 08/28/2013 09:06

% Solids: 85.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.57	0.57	0.027	mg/Kg	U		1	6010B
7439-92-1	Lead	6.9	0.34	0.16	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP3-1FLR
Lab Sample ID: 180-24554-15

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1

SDG ID.:

Matrix: Solid
Date Sampled: 08/27/2013 13:45

Reporting Basis: DRY
Date Received: 08/28/2013 09:06

% Solids: 75.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	5.8	0.66	0.032	mg/Kg			1	6010B
7439-92-1	Lead	23	0.40	0.19	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q8/Q9-1S
Lab Sample ID: 180-24554-16
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:00
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 83.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.11	0.57	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	8.3	0.34	0.17	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q8/Q9-25 Lab Sample ID: 180-24554-17

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG ID.:

Matrix: Solid Date Sampled: 08/27/2013 15:05

Reporting Basis: DRY Date Received: 08/28/2013 09:06

% Solids: 77.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.7	0.64	0.031	mg/Kg			1	6010B
7439-92-1	Lead	13	0.38	0.19	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q8/Q9-3S
Lab Sample ID: 180-24554-18
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:10
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 84.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.21	0.59	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	8.5	0.35	0.17	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q7/Q8-1S
Lab Sample ID: 180-24554-19
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:25
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 77.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.43	0.64	0.031	mg/Kg	J		1	6010B
7439-92-1	Lead	8.9	0.38	0.18	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q7/Q8-2S
Lab Sample ID: 180-24554-20
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:30
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 57.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.0	0.83	0.040	mg/Kg			1	6010B
7439-92-1	Lead	9.7	0.50	0.24	mg/Kg		B	1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q7/Q8-3S
Lab Sample ID: 180-24554-21
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2013 15:35
Reporting Basis: DRY
Date Received: 08/28/2013 09:06
% Solids: 66.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.2	0.75	0.036	mg/Kg			1	6010B
7439-92-1	Lead	18	0.45	0.22	mg/Kg		B	1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00089

Analyte	ICV 180-82147/5 08/29/2013 06:36				CCV 180-82147/82 08/29/2013 13:40				CCV 180-82147/94 08/29/2013 14:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	250		250	100	507		500	101	513		500	103
Lead	252		250	101	508		500	102	514		500	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00089

Analyte	CCV 180-82147/106 08/29/2013 15:54				CCV 180-82147/118 08/29/2013 16:58				CCV 180-82147/130 08/29/2013 18:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	506		500	101	509		500	102	516		500	103
Lead	506		500	101	511		500	102	518		500	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-82147/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00032

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.09		102	50-150
Lead	3.00	3.39		113	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-82147/6 08/29/2013 06:42		CCB7 180-82147/83 08/29/2013 13:46		CCB8 180-82147/95 08/29/2013 14:55		CCB9 180-82147/107 08/29/2013 15:59	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	0.150	J	5.0	U
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB10 180-82147/119 08/29/2013 17:03		CCB11 180-82147/131 08/29/2013 18:07					
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U				
Lead	3.0	3.0	U	3.0	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-81996/1-A

Instrument Code: T Batch No.: 82147

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.45	U		6010B
7439-92-1	Lead	0.27	U		6010B

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-81997/1-A

Instrument Code: T Batch No.: 82147

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.49	U		6010B
7439-92-1	Lead	0.172	J		6010B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Lab Sample ID: ICSA 180-82147/9 Instrument ID: T

Lab File ID: T30829C ICS Source: MICSAICP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Cadmium		0.0400	
Lead		-0.830	
Aluminum	*500000*	*495955*	*99*
Antimony		*0.700*	
Arsenic		*-0.720*	
Barium		*0.980*	
Beryllium		*-0.350*	
Boron		*-1.75*	
Calcium	*500000*	*483617*	*97*
Chromium		*-0.330*	
Cobalt		*-0.920*	
Copper		*-5.42*	
Iron	*200000*	*194951*	*97*
Magnesium	*500000*	*510253*	*102*
Manganese		*-0.130*	
Molybdenum		*-0.710*	
Nickel		*-0.100*	
Potassium		*158*	
Selenium		*3.05*	
Silicon		*12.6*	
Silver		*-0.200*	
Sodium		*-792*	
Strontium		*16.9*	
Thallium		*4.59*	
Tin		*2.15*	
Titanium		*-2.73*	
Vanadium		*4.14*	
Zinc		*0.130*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

SDG No.:

Lab Sample ID: ICSAB 180-82147/10 Instrument ID: T

Lab File ID: T30829C ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Cadmium	**1000**	**943**	**94**
Lead	**1000**	**945**	**95**
Aluminum	*500000*	*490653*	*98*
Antimony	*1000*	*1013*	*101*
Arsenic	*1000*	*1002*	*100*
Barium	*500*	*518*	*104*
Beryllium	*500*	*494*	*99*
Boron	*1000*	*1027*	*103*
Calcium	*500000*	*485305*	*97*
Chromium	*500*	*487*	*97*
Cobalt	*500*	*471*	*94*
Copper	*500*	*517*	*103*
Iron	*200000*	*196035*	*98*
Magnesium	*500000*	*511638*	*102*
Manganese	*500*	*489*	*98*
Molybdenum	*1000*	*994*	*99*
Nickel	*1000*	*927*	*93*
Potassium	*10000*	*9193*	*92*
Selenium	*1000*	*995*	*100*
Silicon	*1000*	*1010*	*101*
Silver	*1000*	*1046*	*105*
Sodium	*10000*	*10405*	*104*
Strontium	*1000*	*1025*	*103*
Thallium	*1000*	*957*	*96*
Tin	*1000*	*991*	*99*
Titanium	*1000*	*997*	*100*
Vanadium	*500*	*499*	*100*
Zinc	*1000*	*1015*	*102*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: FDDA-Q7/Q8-4S MS
Lab ID: 180-24554-1 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 76.9

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	7.93	2.2	6.31	90	75-125		6010B
Lead	72.4	14	63.1	92	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: TP3-V3/V4 MS
Lab ID: 180-24554-13 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 79.2

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	8.70	3.0	6.19	92	75-125		6010B
Lead	75.9	17	61.9	95	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: FDDA-Q7/Q8-4S MSD
Lab ID: 180-24554-1 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 76.9

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	8.33	6.31	96	75-125	5	20		6010B
Lead	73.4	63.1	94	75-125	1	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: TP3-V3/V4 MSD
Lab ID: 180-24554-13 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24554-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 79.2

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	8.48	6.19	88	75-125	3	20		6010B
Lead	75.4	61.9	94	75-125	1	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-81996/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.63	4.44		96	80	120		6010B
Lead	46.3	44.7		96	80	120		6010B

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-81997/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24554-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.59	4.44		97	80	120		6010B
Lead	45.9	44.5		97	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24554-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24554-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	2.2		2.32	J	3.5		6010B
Lead	14		15.1		6.6		6010B

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

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24554-13

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24554-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	3.0		3.08		2.5		6010B
Lead	17		17.8		3.0		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24558
Sampled 08/27/2013

TCLP CADMIUM and LEAD

CFSA-GREY-1 (24558-1)

DATA ASSESSMENT

An inorganics data package containing analytical results for one soil sample was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The sample, taken from the Townley Hill Road Site, was identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods 1311 and 6010, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

CORRECTNESS AND USABILITY

The data reported from this group of samples should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 02 Oct 13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Soil samples must undergo TCLP extractions within 180 days of receipt. TCLP extracts must be analyzed within 180 days of extraction.

This sample delivery group contained one soil sample that was collected from the Townley Hill Road site on 27Aug13. It was shipped to the laboratory, via FedEx, on the day of collection and was received the next morning. The sample shipment was found to be intact and packed with ice at the time of receipt.

CFSA-GREY-1 underwent a TCLP extraction on 28Aug13. The extract solution was digested and analyzed for cadmium and lead on 30Aug13. The TCLP extraction solution was selected correctly, and the samples were tumbled at 30 revolutions per minute for 18 hours. The ambient temperature was maintained at 25°C during the extraction. The analysis of this group of samples was completed within the holding time limitations of ASP protocol.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

Matrix spiked samples were not prepared with this delivery group.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An aqueous spiked blank (LCS) was digested and analyzed this delivery group. This LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

A sample from an unrelated program was prepared as a serial dilution. Of the analytes present in the original sample, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 27, 2013

CFSA-GREY-1 (24558-1)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: CFSA-GRAY 1 | Lab Sample ID: 180-24558-1

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24558-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/27/2013 14:00

Reporting Basis: WET | Date Received: 08/28/2013 09:06

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.00046	0.050	0.00013	mg/L	J		1	6010B
7439-92-1	Lead	0.0072	0.050	0.0013	mg/L	J	B	1	6010B

JB13

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00089

Analyte	ICV 180-82261/5 08/30/2013 05:57				CCV 180-82261/11 08/30/2013 06:29				CCV 180-82261/35 08/30/2013 08:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	246		250	99	493		500	99	488		500	98
Lead	247		250	99	498		500	100	490		500	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00089

Analyte	CCV 180-82261/44 08/30/2013 09:29				CCV 180-82261/107 08/30/2013 15:21				CCV 180-82261/118 08/30/2013 16:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	491		500	98	514		500	103	507		500	101
Lead	495		500	99	513		500	103	509		500	102

Note: Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00089

Analyte	CCV 180-82261/128 08/30/2013 17:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	511		500	102								
Lead	511		500	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-82261/43 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00032

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.13		103	50-150
Lead	3.00	3.76		125	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-82261/6 08/30/2013 06:02		CCB1 180-82261/12 08/30/2013 06:34		CCB3 180-82261/36 08/30/2013 08:45		CCB4 180-82261/45 08/30/2013 09:34	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U	0.130	J
Lead	3.0	3.0	U	3.0	U	3.0	U	1.45	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Job Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB10 180-82261/108 08/30/2013 15:27		CCB11 180-82261/119 08/30/2013 16:27		CCB12 180-82261/129 08/30/2013 17:20			
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U		
Lead	3.0	1.39	J	3.0	U	1.36	J		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 180-82178/1-A

Instrument Code: T Batch No.: 82261

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.050	U		6010B
7439-92-1	Lead	0.050	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 180-82000/14-C

Instrument Code: T Batch No.: 82261

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.050	U		6010B
7439-92-1	Lead	0.00184	J		6010B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Lab Sample ID: ICSA 180-82261/9 Instrument ID: T

Lab File ID: T30830B ICS Source: MICSAICP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**-0.730**	
Lead		**1.73**	
Aluminum	*500000*	*495514*	*99*
Antimony		*-2.47*	
Arsenic		*-1.65*	
Barium		*1.28*	
Beryllium		*-0.360*	
Boron		*-1.85*	
Calcium	*500000*	*489672*	*98*
Chromium		*-0.470*	
Cobalt		*-0.100*	
Copper		*-6.19*	
Iron	*200000*	*196363*	*98*
Magnesium	*500000*	*512526*	*103*
Manganese		*-0.220*	
Molybdenum		*-0.230*	
Nickel		*-0.350*	
Potassium		*136*	
Selenium		*4.76*	
Silicon		*9.21*	
Silver		*-0.0800*	
Sodium		*-308*	
Strontium		*16.9*	
Thallium		*9.68*	
Tin		*3.91*	
Titanium		*-2.66*	
Vanadium		*6.41*	
Zinc		*-0.220*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

SDG No.:

Lab Sample ID: ICSAB 180-82261/10 Instrument ID: T

Lab File ID: T30830B ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Cadmium	**1000**	**925**	**93**
Lead	**1000**	**937**	**94**
Aluminum	*500000*	*496102*	*99*
Antimony	*1000*	*1009*	*101*
Arsenic	*1000*	*985*	*98*
Barium	*500*	*521*	*104*
Beryllium	*500*	*494*	*99*
Boron	*1000*	*1028*	*103*
Calcium	*500000*	*488224*	*98*
Chromium	*500*	*487*	*97*
Cobalt	*500*	*469*	*94*
Copper	*500*	*518*	*104*
Iron	*200000*	*196895*	*98*
Magnesium	*500000*	*509122*	*102*
Manganese	*500*	*489*	*98*
Molybdenum	*1000*	*994*	*99*
Nickel	*1000*	*923*	*92*
Potassium	*10000*	*9133*	*91*
Selenium	*1000*	*970*	*97*
Silicon	*1000*	*1013*	*101*
Silver	*1000*	*1049*	*105*
Sodium	*10000*	*10637*	*106*
Strontium	*1000*	*1030*	*103*
Thallium	*1000*	*951*	*95*
Tin	*1000*	*983*	*98*
Titanium	*1000*	*998*	*100*
Vanadium	*500*	*500*	*100*
Zinc	*1000*	*1011*	*101*

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

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-82178/3-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24558-1

Sample Matrix: Water LCS Source: MTAPITTMSBREV_00007

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	0.0500	0.0510		102	80	120		6010B
Lead	0.500	0.499		100	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 180-24561-A-1-H SD ^5 non-program sample

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24558-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	0.050	U	0.25	U	NC		6010B
Lead	1.4		1.44		0.07		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24645
Sampled 08/29/2013

TCLP CADMIUM and LEAD

CFSA-W.WALL 21 (24645-1)
CFSA-S.WALL 20 (24645-2)
CFSA-FLOOR 22 (24645-3)
POND CFS (24645-4)

DATA ASSESSMENT

An inorganics data package containing analytical results for four soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods 1311 and 6010, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

CORRECTNESS AND USABILITY

The data reported from this group of samples should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 02 Oct 13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Soil samples must undergo TCLP extractions within 180 days of receipt. TCLP extracts must be analyzed within 180 days of extraction.

This sample delivery group contained four soil samples that were collected from the Townley Hill Road site on 29Aug13. The samples were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The sample shipment was found to be intact and packed with ice at the time of receipt.

The entire group of samples underwent a TCLP extraction on 30Aug13. The extract solutions were digested on 04Sep13 and analyzed for cadmium and lead on 05Sep13. The TCLP extraction solutions were selected correctly, and the samples were tumbled at 30 rpm for 18 hours. The ambient temperature was maintained at 25°C during the extraction. The analysis of this group of samples was completed within the holding time limitations of ASP protocol.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory

technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

A TCLP extract from an unrelated program was selected for matrix spiking. Cadmium and lead were added to two aliquots of this sample. The recoveries reported for these additions demonstrated acceptable levels of measurement accuracy and precision.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then

determined without interferences caused by sample matrix effects.

An aqueous spiked blank (LCS) was digested and analyzed this delivery group. This LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

A sample from an unrelated program was prepared as a serial dilution. Of the analytes present in the original sample, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled August 29, 2013

CFSA-W.WALL 21 (24645-1)
CFSA-S.WALL 20 (24645-2)
CFSA-FLOOR 22 (24645-3)
POND CFS (24645-4)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: CFSA- W.WALL 21 | Lab Sample ID: 180-24645-1

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24645-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/29/2013 09:00

Reporting Basis: WET | Date Received: 08/30/2013 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	5.7	0.10	0.00026	mg/L		B	2	6010B
7439-92-1	Lead	1.4	0.050	0.0013	mg/L			1	6010B

783

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: CFSA- S. WALL 20 | Lab Sample ID: 180-24645-2

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24645-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/29/2013 09:10

Reporting Basis: WET | Date Received: 08/30/2013 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	9.4	0.25	0.00065	mg/L		B	5	6010B
7439-92-1	Lead	0.81	0.050	0.0013	mg/L			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: CFSA- FLOOR 22 | Lab Sample ID: 180-24645-3

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24645-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/29/2013 09:15

Reporting Basis: WET | Date Received: 08/30/2013 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.4	0.050	0.00013	mg/L		B	1	6010B
7439-92-1	Lead	1.5	0.050	0.0013	mg/L			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: POND CFS
Lab Sample ID: 180-24645-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24645-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/29/2013 09:50
Reporting Basis: WET
Date Received: 08/30/2013 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.0	0.050	0.00013	mg/L		B	1	6010B
7439-92-1	Lead	0.34	0.050	0.0013	mg/L			1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00090

Analyte	ICV 180-82618/5 09/05/2013 05:41				CCV 180-82618/11 09/05/2013 06:13				CCV 180-82618/35 09/05/2013 08:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	244		250	98	492		500	98	491		500	98
Lead	248		250	99	499		500	100	494		500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00090

Analyte	CCV 180-82618/47 09/05/2013 09:29				CCV 180-82618/59 09/05/2013 10:32				CCV 180-82618/71 09/05/2013 11:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	490		500	98	486		500	97	491		500	98
Lead	489		500	98	490		500	98	494		500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-82618/8 Concentration Units: ug/L

CRQL Check Standard Source: TCLP CRI_00002

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	50.0	50.4		101	50-150
Lead	50.0	51.0		102	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-82618/6 09/05/2013 05:46		CCB1 180-82618/12 09/05/2013 06:18		CCB3 180-82618/36 09/05/2013 08:27		CCB4 180-82618/48 09/05/2013 09:34	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U	0.150	J
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Job Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB5 180-82618/60 09/05/2013 10:38		CCB6 180-82618/72 09/05/2013 11:45					
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U				
Lead	3.0	3.0	U	3.0	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 180-82461/1-A

Instrument Code: T Batch No.: 82618

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.050	U		6010B
7439-92-1	Lead	0.050	U		6010B

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 180-82248/15-F

Instrument Code: T Batch No.: 82618

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.000150	J		6010B
7439-92-1	Lead	0.050	U		6010B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Lab Sample ID: ICSA 180-82618/9 Instrument ID: T

Lab File ID: T30905B ICS Source: MICSAICP_00024

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**0.660**	
Lead		**-5.56**	
Aluminum	*500000*	*485966*	*97*
Antimony		*1.19*	
Arsenic		*-2.17*	
Barium		*1.28*	
Beryllium		*-0.0400*	
Boron		*-0.850*	
Calcium	*500000*	*483597*	*97*
Chromium		*0.160*	
Cobalt		*-0.260*	
Copper		*-4.92*	
Iron	*200000*	*194001*	*97*
Magnesium	*500000*	*511097*	*102*
Manganese		*0.590*	
Molybdenum		*0.440*	
Nickel		*1.59*	
Potassium		*172*	
Selenium		*3.50*	
Silicon		*3.57*	
Silver		*0.840*	
Sodium		*-627*	
Strontium		*17.0*	
Thallium		*-6.13*	
Tin		*7.62*	
Titanium		*-2.57*	
Vanadium		*2.11*	
Zinc		*1.15*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Lab Sample ID: ICSAB 180-82618/10 Instrument ID: T

Lab File ID: T30905B ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Cadmium	**1000**	**928**	**93**
Lead	**1000**	**935**	**94**
Aluminum	*500000*	*485546*	*97*
Antimony	*1000*	*1002*	*100*
Arsenic	*1000*	*993*	*99*
Barium	*500*	*520*	*104*
Beryllium	*500*	*483*	*97*
Boron	*1000*	*1010*	*101*
Calcium	*500000*	*483370*	*97*
Chromium	*500*	*478*	*96*
Cobalt	*500*	*460*	*92*
Copper	*500*	*516*	*103*
Iron	*200000*	*194919*	*97*
Magnesium	*500000*	*510631*	*102*
Manganese	*500*	*479*	*96*
Molybdenum	*1000*	*977*	*98*
Nickel	*1000*	*900*	*90*
Potassium	*10000*	*9129*	*91*
Selenium	*1000*	*978*	*98*
Silicon	*1000*	*994*	*99*
Silver	*1000*	*1040*	*104*
Sodium	*10000*	*10641*	*106*
Strontium	*1000*	*1026*	*103*
Thallium	*1000*	*939*	*94*
Tin	*1000*	*960*	*96*
Titanium	*1000*	*992*	*99*
Vanadium	*500*	*491*	*98*
Zinc	*1000*	*997*	*100*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID:

Lab ID: 180-24660-A-1-J MS non-program sample

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24645-1

SDG No.:

Matrix: Solid

Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	1.04		0.013	J	1.00	102	75-125		6010B
Lead	5.20		0.050	U	5.00	104	75-125		6010B

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: Lab ID: 180-24660-A-1-K MSD non-program sample

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

SDG No.:

Matrix: Solid Concentration Units: mg/L

% Solids:

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	1.01	1.00	99	75-125	3	20		6010B
Lead	5.06	5.00	101	75-125	3	20		6010B

SDR = Sample Duplicate Result

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

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-82461/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24645-1

Sample Matrix: Water LCS Source: MTAPITTMSBREV_00007

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	0.0500	0.0500		100	80	120		6010B
Lead	0.500	0.492		98	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 180-24660-A-1-I SD ^5 non-program sample

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24645-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	0.013	J	0.0130	J	1.2		6010B
Lead	0.050	U	0.25	U	NC		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24883
Sampled 09/6/2013

TOTAL CADMIUM and LEAD

TP7116-W1/W2-1S	(24883-01)	TP7116-W2/W3-1S	(24883-02)
TP7116-W3/W4-1S	(24883-03)	TP7116-W4/W5-1S	(24883-04)
TP7116-W8/W9-1S	(24883-05)	TP7116-W9/W10-1S	(24883-06)
TP7116-W10/W11-1S	(24883-07)	TP7116-W11/W1-1S	(24883-08)
TP7116-1FLR	(24883-09)	TP7116-2FLR	(24883-10)
TP7116-3FLR	(24883-11)	FDAA-Q5/Q4-3S	(24883-12)
FDAA-Q5/Q4-4S	(24883-13)	FDAA-Q3/Q4-1S	(24883-14)
FDAA-Q3/Q4-2S	(24883-15)	FDAA-Q2/Q3-1S	(24883-16)
FDAA-F1-1FLR	(24883-17)	FDAA-F2-1FLR	(24883-18)
FDAA-F3-1FLR	(24883-19)	FDAA-G3-1FLR	(24883-20)
FDAA-D1-1AFLR	(24883-21)	DUP3	(24883-22)

DATA ASSESSMENT

An inorganics data package containing analytical results for twenty-two soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

The cadmium results reported from TP7116-W1/W2-1S, TP7116-W2/W3-1S, TP7116-W3/W4-1S, TP7116-W4/W5-1S, TP7116-W8/W9-1S, TP7116-W9/W10-1S, TP7116-W10/W11-1S, TP7116-W11/W1-1S, TP7116-1FLR, TP7116-2FLR and TP7116-3FLR have been qualified as estimations due to high matrix spike recoveries.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 02Oct13

James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained twenty-two soil samples that were collected from the Townley Hill Road site on 06Sep13. They were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The shipment of samples was found to be intact and packed with ice at the time of receipt.

The samples from this delivery group were digested and analyzed for cadmium and lead on 09Sep13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in

the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

TP7116-W1/W2-1S and FDDA-Q3/Q4-1S were selected for matrix spiking. The required targeted analytes were added to two portions of both samples. The recoveries reported for these additions included unacceptably high cadmium results (182%,978%) from TP7116-W1-W2-1S. The remaining cadmium and lead recoveries were acceptable. The cadmium results reported from TP7116-W1/W2-1S, TP7116-W2/W3-1S, TP7116-W3/W4-1S, TP7116-W4/W5-1S, TP7116-W8/W9-1S, TP7116-W9/W10-1S, TP7116-W10/W11-1S, TP7116-W11/W1-1S, TP7116-1FLR, TP7116-2FLR and TP7116-3FLR have been qualified as estimations based on the observed indications of positive bias. The remaining results were unaffected by this performance.

In addition to the observed positive bias, the cadmium recoveries reported from TP7116-W1/W2-1S indicate poor measurement precision. This may be due to a non-homogeneous sample matrix.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Although a field duplicate sample was included in this delivery group, it was not identified.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two soil spiked blanks (LCS) was digested and analyzed this delivery group. Both LCS produced excellent recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

TP7116-W1/W2-1S and FDDA-Q3/Q4-1S were prepared as serial dilutions. Of the analytes present in the original samples, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

DATA QUALIFICATIONS

TOWNLEY HILL ROAD SITE

Sampled September 10, 2013

		SPIKES CADMIUM
TP7116-W1/W2-1S	(24883-01)	1.8J
TP7116-W2/W3-1S	(24883-02)	5.9J
TP7116-W3/W4-1S	(24883-03)	24J
TP7116-W4/W5-1S	(24883-04)	49J
TP7116-W8/W9-1S	(24883-05)	3.9J
TP7116-W9/W10-1S	(24883-06)	1.7J
TP7116-W10/W11-1S	(24883-07)	20J
TP7116-W11/W1-1S	(24883-08)	0.055J
TP7116-1FLR	(24883-09)	0.34J
TP7116-2FLR	(24883-10)	18J
TP7116-3FLR	(24883-11)	2.3J
FDAA-Q5/Q4-3S	(24883-12)	
FDAA-Q5/Q4-4S	(24883-13)	
FDAA-Q3/Q4-1S	(24883-14)	
FDAA-Q3/Q4-2S	(24883-15)	
FDAA-Q2/Q3-1S	(24883-16)	
FDAA-F1-1FLR	(24883-17)	
FDAA-F2-1FLR	(24883-18)	
FDAA-F3-1FLR	(24883-19)	
FDAA-G3-1FLR	(24883-20)	
FDAA-D1-1AFLR	(24883-21)	
DUP3	(24883-22)	

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W1/W2-1S
Lab Sample ID: 180-24883-1

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 14:40

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 88.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.8	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	7.0	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W2/W3-1S
Lab Sample ID: 180-24883-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 14:45
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 90.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	5.9	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W3/W4-1S
Lab Sample ID: 180-24883-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 14:50
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 85.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	24	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	77	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W4/W5-1S
Lab Sample ID: 180-24883-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 14:55
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 81.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	49	0.62	0.030	mg/Kg	J		1	6010B
7439-92-1	Lead	150	0.37	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W8/W9-1S
Lab Sample ID: 180-24883-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 15:00
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 87.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.9	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	18	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: TP7116-W9/W10-1S

Lab Sample ID: 180-24883-6

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24883-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/06/2013 15:05

Reporting Basis: DRY

Date Received: 09/07/2013 10:15

% Solids: 85.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.7	0.59	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	12	0.35	0.17	mg/Kg	J		1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W10/W11-1S
Lab Sample ID: 180-24883-7

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 15:10

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 81.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	20	0.61	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	47	0.37	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-W11/W1-1S
Lab Sample ID: 180-24883-8

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 15:15

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 90.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.055	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	7.5	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-1FLR
Lab Sample ID: 180-24883-9
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 15:20
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 81.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.34	0.59	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	6.5	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-2FLR
Lab Sample ID: 180-24883-10
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 15:25
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 78.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	18	0.59	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	91	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: TP7116-3FLR
Lab Sample ID: 180-24883-11
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 15:30
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 86.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.3	0.61	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	9.5	0.36	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q5/Q4-3S
Lab Sample ID: 180-24883-12

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 15:50

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 77.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	5.6	0.65	0.031	mg/Kg			1	6010B
7439-92-1	Lead	13	0.39	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: FDDA-Q5/Q4-4S

Lab Sample ID: 180-24883-13

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24883-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/06/2013 15:55

Reporting Basis: DRY

Date Received: 09/07/2013 10:15

% Solids: 82.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.38	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q3/Q4-1S
Lab Sample ID: 180-24883-14
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 16:00
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 76.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.99	0.64	0.031	mg/Kg			1	6010B
7439-92-1	Lead	11	0.38	0.18	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q3/Q4-2S
Lab Sample ID: 180-24883-15

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 16:05

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 87.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.74	0.56	0.027	mg/Kg			1	6010B
7439-92-1	Lead	6.6	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q2/Q3-1S
Lab Sample ID: 180-24883-16

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 16:10

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 87.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.59	0.57	0.027	mg/Kg			1	6010B
7439-92-1	Lead	7.2	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-F1-1FLR
Lab Sample ID: 180-24883-17

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 16:15

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 90.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	100	0.56	0.027	mg/Kg			1	6010B
7439-92-1	Lead	20	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-F2-1FLR
Lab Sample ID: 180-24883-18

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 16:20

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 90.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.4	0.53	0.025	mg/Kg			1	6010B
7439-92-1	Lead	12	0.32	0.15	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-F3-1FLR
Lab Sample ID: 180-24883-19
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 16:25
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 91.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.42	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	9.4	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-G3-1FLR
Lab Sample ID: 180-24883-20

Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1

SDG ID.:

Matrix: Solid
Date Sampled: 09/06/2013 16:30

Reporting Basis: DRY
Date Received: 09/07/2013 10:15

% Solids: 90.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.91	0.52	0.025	mg/Kg			1	6010B
7439-92-1	Lead	8.8	0.31	0.15	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D1-1AFLR
Lab Sample ID: 180-24883-21
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/06/2013 16:35
Reporting Basis: DRY
Date Received: 09/07/2013 10:15
% Solids: 87.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	Dil	Method
7440-43-9	Cadmium	1.5	0.56	0.027	mg/Kg			1	6010B
7439-92-1	Lead	7.3	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP3 Lab Sample ID: 180-24883-22

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG ID.:

Matrix: Solid Date Sampled: 09/06/2013 00:00

Reporting Basis: DRY Date Received: 09/07/2013 10:15

% Solids: 82.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.3	0.61	0.029	mg/Kg			1	6010B
7439-92-1	Lead	9.0	0.37	0.18	mg/Kg			1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00090

Analyte	ICV 180-82953/5 09/09/2013 12:27				CCV 180-82953/11 09/09/2013 12:59				CCV 180-82953/83 09/09/2013 19:32			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	244		250	98	482		500	96	501		500	100
Lead	247		250	99	487		500	97	503		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00090

Analyte	CCV 180-82953/95 09/09/2013 20:36				CCV 180-82953/107 09/09/2013 21:40				CCV 180-82953/119 09/09/2013 22:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	492		500	98	500		500	100	499		500	100
Lead	499		500	100	506		500	101	504		500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00090

Analyte	CCV 180-82953/123 09/09/2013 23:05											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	502		500	100								
Lead	507		500	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-82953/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00032

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	4.82	J	96	50-150
Lead	3.00	2.36	J	79	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-82953/6 09/09/2013 12:32		CCB1 180-82953/12 09/09/2013 13:04		CCB7 180-82953/84 09/09/2013 19:37		CCB8 180-82953/96 09/09/2013 20:41	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB9 180-82953/108 09/09/2013 21:45		CCB10 180-82953/120 09/09/2013 22:49		CCB11 180-82953/124 09/09/2013 23:10			
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U		
Lead	3.0	3.0	U	3.0	U	3.0	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-82856/1-A

Instrument Code: T Batch No.: 82953

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.50	U		6010B
7439-92-1	Lead	0.30	U		6010B

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-82857/1-A

Instrument Code: T Batch No.: 82953

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.51	U		6010B
7439-92-1	Lead	0.30	U		6010B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Lab Sample ID: ICSA 180-82953/9 Instrument ID: T

Lab File ID: T30909E ICS Source: MICSAICP_00025

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Cadmium		**0.490**	
Lead		**-3.58**	
Aluminum	*500000*	*490276*	*98*
Antimony		*0.690*	
Arsenic		*0.0100*	
Barium		*1.24*	
Beryllium		*-0.280*	
Boron		*-2.69*	
Calcium	*500000*	*480612*	*96*
Chromium		*-0.0700*	
Cobalt		*-0.290*	
Copper		*-5.30*	
Iron	*200000*	*193453*	*97*
Magnesium	*500000*	*508855*	*102*
Manganese		*0.300*	
Molybdenum		*-1.09*	
Nickel		*0.820*	
Potassium		*164*	
Selenium		*4.00*	
Silicon		*12.4*	
Silver		*0.110*	
Sodium		*-652*	
Strontium		*17.1*	
Thallium		*-1.97*	
Tin		*-1.20*	
Titanium		*-3.02*	
Vanadium		*2.21*	
Zinc		*0.550*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

SDG No.:

Lab Sample ID: ICSAB 180-82953/10 Instrument ID: T

Lab File ID: T30909E ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Cadmium	**1000**	**928**	**93**
Lead	**1000**	**933**	**93**
Aluminum	*500000*	*488439*	*98*
Antimony	*1000*	*1009*	*101*
Arsenic	*1000*	*995*	*100*
Barium	*500*	*525*	*105*
Beryllium	*500*	*489*	*98*
Boron	*1000*	*1019*	*102*
Calcium	*500000*	*484067*	*97*
Chromium	*500*	*482*	*96*
Cobalt	*500*	*465*	*93*
Copper	*500*	*521*	*104*
Iron	*200000*	*195113*	*98*
Magnesium	*500000*	*511826*	*102*
Manganese	*500*	*484*	*97*
Molybdenum	*1000*	*987*	*99*
Nickel	*1000*	*914*	*91*
Potassium	*10000*	*9264*	*93*
Selenium	*1000*	*981*	*98*
Silicon	*1000*	*1009*	*101*
Silver	*1000*	*1044*	*104*
Sodium	*10000*	*10411*	*104*
Strontium	*1000*	*1036*	*104*
Thallium	*1000*	*946*	*95*
Tin	*1000*	*970*	*97*
Titanium	*1000*	*1002*	*100*
Vanadium	*500*	*493*	*99*
Zinc	*1000*	*1008*	*101*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: TP7116-W1/W2-1S MS
Lab ID: 180-24883-1 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 88.9

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	11.8	1.8	5.51	182	75-125	F	6010B
Lead	57.8	7.0	55.1	92	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: FDDA-Q3/Q4-1S MS
Lab ID: 180-24883-14 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 76.1

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	6.39	0.99	6.14	88	75-125		6010B
Lead	63.3	11	61.4	85	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: TP7116-W1/W2-1S MSD
Lab ID: 180-24883-1 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 88.9

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	55.2	5.46	978	75-125	129	20	F	6010B
Lead	58.3	54.6	94	75-125	1	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: FDDA-Q3/Q4-1S MSD
Lab ID: 180-24883-14 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24883-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 76.1

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	7.14		6.50	95	75-125	11	20		6010B
Lead	69.9		65.0	90	75-125	10	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-82856/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.95	4.66		94	80	120		6010B
Lead	49.5	47.2		95	80	120		6010B

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-82857/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24883-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	5.10	4.52		89	80	120		6010B
Lead	51.0	45.8		90	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24883-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24883-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	1.8		1.80	J	1.8		6010B
Lead	7.0		6.67		NC		6010B

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

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24883-14

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24883-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	0.99		0.906	J	NC		6010B
Lead	11		10.8		2.7		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

for

CUMMINGS-RITER CONSULTANTS, Inc.

300 Penn Center Blvd

Pittsburgh, PA 15235

TOWNLEY HILL ROAD SITE
Soil Samples
SDG: 24960
Sampled 09/10/2013

TOTAL CADMIUM and LEAD

FDDA-B2-1FLR (24960-01)	FDDA-B3-1FLR (24960-02)
FDDA-B4-1FLR (24960-03)	FDDA-C2-1FLR (24960-04)
FDDA-C3-1FLR (24960-05)	FDDA-D2-1FLR (24960-06)
FDDA-D3-1FLR (24960-07)	FDDA-D5-1FLR (24960-08)
FDDA-D6-1FLR (24960-09)	FDDA-E2-1FLR (24960-10)
FDDA-E3-1FLR (24960-11)	FDDA-E4-1FLR (24960-12)
FDDA-E5-1FLR (24960-13)	FDDA-F4-1FLR (24960-14)
FDDA-F5-1FLR (24960-15)	FDDA-G4-1FLR (24960-16)

TOTAL CADMIUM and LEAD

FDDA-Q9/Q10-2S	(24960-17)	FDDA-Q10/Q11-1S	(24960-18)
FDDA-Q10/Q11-2S	(24960-19)	FDDA-Q10/Q11-3S	(24960-20)
FDDA-Q11/Q12-1S	(24960-21)	FDDA-Q12/Q13-1S	(24960-22)
FDDA-Q12/Q13-2S	(24960-23)	FDDA-Q13/E1-1S	(24960-24)
FDDA-E3/E4-1S	(24960-25)	FDDA-E4/E1-1S	(24960-26)
FDDA-E1/Q1-1S	(24960-27)	FDDA-E1/Q1-2S	(24960-28)
FDDA-E1/Q1-3S	(24960-29)	FDDA-E1/Q1-4S	(24960-30)
FDDA-Q1/Q2-1S	(24960-31)	FDDA-G1/G2-1S	(24960-32)
FDDA-G2/Q2-1S	(24960-33)	DUP4	(24960-34)
DUP5	(24960-35)		

DATA ASSESSMENT

An inorganics data package containing analytical results for thirty-five soil samples was received from Cummings-Riter Consultants, Inc. on 20Sep13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of TestAmerica-Pittsburgh, the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 6010, addressed determinations of total cadmium and total lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-2a, Rev 15, December 2012, ICP-AES Data Validation) was used as a technical reference.

The cadmium results reported from this delivery group have been qualified as estimations due to low matrix spike recoveries.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 02 Oct 13

James B. Baldwin

SAMPLE HISTORY

This sample delivery group contained thirty-five soil samples that were collected from the Townley Hill Road site on 10Sep13. They were shipped to the laboratory, via FedEx, on the day of collection and were received the next morning. The shipment of samples was found to be intact and packed with ice at the time of receipt.

The samples from this delivery group were digested on 09Sep13 and analyzed for cadmium and lead on 12Sep13 and 13Sep13. The ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in

the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of each analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

FDDA-B3-1FLR and FDDA-E4-1FLR were selected for matrix spiking. The required targeted analytes were added to two portions of both samples. The recoveries reported for these additions included unacceptably low recoveries of cadmium (69%,44%,-282%,61%). The cadmium results from this group of samples have been qualified as estimations based on these indications of negative bias. The lead spikes were recovered successfully.

In addition to the observed negative bias, the recoveries reported for cadmium indicate poor measurement precision. This may be due to a non-homogeneous sample matrix.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Although two field duplicate samples were included in this delivery group, they were not identified.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two soil spiked blanks (LCS) was digested and analyzed this delivery group. Both LCS produced excellent recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

FDDA-B3-1FLR and FDDA-E4-1FLR were prepared as serial dilutions. Of the analytes present in the original samples, at a concentration above fifty times MDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

SUMMARY OF QUALIFIED DATA

Townley Hill Site

SAMPLED: September 10, 2013

		SPIKES CADMIUM
FDDA-B2-1FLR	(24960-01)	220J
FDDA-B3-1FLR	(24960-02)	3.3J
FDDA-B4-1FLR	(24960-03)	0.16J
FDDA-C2-1FLR	(24960-04)	0.95J
FDDA-C3-1FLR	(24960-05)	0.46J
FDDA-D2-1FLR	(24960-06)	0.095J
FDDA-D3-1FLR	(24960-07)	55J
FDDA-D5-1FLR	(24960-08)	6.3J
FDDA-D6-1FLR	(24960-09)	8.6J
FDDA-E2-1FLR	(24960-10)	23J
FDDA-E3-1FLR	(24960-11)	110J
FDDA-E4-1FLR	(24960-12)	130J
FDDA-E5-1FLR	(24960-13)	0.083J
FDDA-F4-1FLR	(24960-14)	9.0J
FDDA-F5-1FLR	(24960-15)	3.8J
FDDA-G4-1FL R	(24960-16)	1.2J
FDDA-Q9/Q10-2S	(24960-17)	0.15J
FDDA-Q10/Q11-1S	(24960-18)	2.5J
FDDA-Q10/Q11-2S	(24960-19)	0.25J
FDDA-Q10/Q11-3S	(24960-20)	29J
FDDA-Q11/Q12-1S	(24960-21)	1.5J
FDDA-Q12/Q13-1S	(24960-22)	4.6J
FDDA-Q12/Q13-2S	(24960-23)	0.052J

SUMMARY OF QUALIFIED DATA

Townley Hill Site

SAMPLED: September 10, 2013

		SPIKES CADMIUM
FDDA-Q13/E1-1S	(24960-24)	300J
FDDA-E3/E4-1S	(24960-25)	0.77J
FDDA-E4/E1-1S	(24960-26)	21J
FDDA-E1/Q1-1S	(24960-27)	2.7J
FDDA-E1/Q1-2S	(24960-28)	0.67J
FDDA-E1/Q1-3S	(24960-29)	9.0J
FDDA-E1/Q1-4S	(24960-30)	1.2J
FDDA-Q1/Q2-1S	(24960-31)	24J
FDDA-G1/G2-1S	(24960-32)	0.62J
FDDA-G2/Q2-1S	(24960-33)	3.4J
DUP4	(24960-34)	1.1J
DUP5	(24960-35)	94J

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-B2-1FLR
Lab Sample ID: 180-24960-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 09:50
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 84.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	220	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	32	0.34	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-B3-1FLR
Lab Sample ID: 180-24960-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 09:55
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 89.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.3	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	9.3	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-B4-1FLR
Lab Sample ID: 180-24960-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:00
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 86.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.16	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	8.6	0.34	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-C2-1FLR
Lab Sample ID: 180-24960-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:05
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.95	0.56	0.027	mg/Kg	1		1	6010B
7439-92-1	Lead	12	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-C3-1FLR
Lab Sample ID: 180-24960-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:15
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 89.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.46	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	11	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D2-1FLR
Lab Sample ID: 180-24960-6
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:20
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 90.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.095	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	13	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D3-1FLR
Lab Sample ID: 180-24960-7
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:25
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 87.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	55	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	19	0.34	0.16	mg/Kg			1	6010B

INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D5-1FLR

Lab Sample ID: 180-24960-8

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24960-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/10/2013 10:30

Reporting Basis: DRY

Date Received: 09/11/2013 09:00

% Solids: 92.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	6.3	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	9.4	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-D6-1FLR
Lab Sample ID: 180-24960-9
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:35
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	8.6	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	10	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E2-1FLR
Lab Sample ID: 180-24960-10
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:40
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	23	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	13	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E3-1FLR
Lab Sample ID: 180-24960-11
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:45
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 89.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	110	0.55	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	33	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E4-1FLR
Lab Sample ID: 180-24960-12
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 10:50
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 86.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	130	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	31	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E5-1FLR
Lab Sample ID: 180-24960-13
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:00
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.083	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	9.4	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: FDDA-F4-1FLR

Lab Sample ID: 180-24960-14

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24960-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/10/2013 11:05

Reporting Basis: DRY

Date Received: 09/11/2013 09:00

% Solids: 80.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	9.0	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	9.6	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: FDDA-F5- 1FLR

Lab Sample ID: 180-24960-15

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24960-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/10/2013 11:10

Reporting Basis: DRY

Date Received: 09/11/2013 09:00

% Solids: 87.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.8	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	13	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-G4-1FLR
Lab Sample ID: 180-24960-16
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:15
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 82.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.2	0.58	0.028	mg/Kg	J		1	6010B
7439-92-1	Lead	6.8	0.35	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q9/Q10-2S
Lab Sample ID: 180-24960-17
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:30
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 89.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.15	0.54	0.026	mg/Kg	B J		1	6010B
7439-92-1	Lead	11	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q10/Q11-1S
Lab Sample ID: 180-24960-18
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:35
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 90.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.5	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	15	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q10/Q11-2S

Lab Sample ID: 180-24960-19

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24960-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/10/2013 11:40

Reporting Basis: DRY

Date Received: 09/11/2013 09:00

% Solids: 90.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.25	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	16	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q10/Q11-3S
Lab Sample ID: 180-24960-20
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:45
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	29	0.55	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	38	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q11/Q12-1S
Lab Sample ID: 180-24960-21
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:50
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 90.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.5	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q12/Q13-1S
Lab Sample ID: 180-24960-22
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 11:55
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 90.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	4.6	0.55	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	15	0.33	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q12/Q13-2S
Lab Sample ID: 180-24960-23
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:00
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 92.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.052	0.53	0.025	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.32	0.15	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-Q13/E1-1S
Lab Sample ID: 180-24960-24
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:05
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 91.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	300	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	53	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E3/E4-1S
Lab Sample ID: 180-24960-25
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:10
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.77	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	7.3	0.34	0.16	mg/Kg			1	6010B

J,B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E4/E1-1S
Lab Sample ID: 180-24960-26
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:15
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 82.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	21	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	12	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E1/Q1-1S
Lab Sample ID: 180-24960-27
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:20
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 87.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	2.7	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	10	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E1/Q1-2S
Lab Sample ID: 180-24960-28
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:25
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 92.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.67	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	7.5	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E1/Q1-3S
Lab Sample ID: 180-24960-29
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:30
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 90.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	9.0	0.54	0.026	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.32	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-E1/Q1-4S
Lab Sample ID: 180-24960-30
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:35
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 88.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.2	0.56	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	8.5	0.34	0.16	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

ent Sample ID: FDDA-Q1/Q2-1S

Lab Sample ID: 180-24960-31

Lab Name: TestAmerica Pittsburgh

Job No.: 180-24960-1

SDG ID.:

Matrix: Solid

Date Sampled: 09/10/2013 12:40

Reporting Basis: DRY

Date Received: 09/11/2013 09:00

% Solids: 76.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	24	0.64	0.031	mg/Kg	J		1	6010B
7439-92-1	Lead	18	0.38	0.19	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-G1/G2-1S
Lab Sample ID: 180-24960-32
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:45
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 81.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.62	0.60	0.029	mg/Kg	J		1	6010B
7439-92-1	Lead	13	0.36	0.17	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: FDDA-G2/Q2-1S
Lab Sample ID: 180-24960-33
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG ID.:
Matrix: Solid
Date Sampled: 09/10/2013 12:50
Reporting Basis: DRY
Date Received: 09/11/2013 09:00
% Solids: 71.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	3.4	0.70	0.033	mg/Kg	J		1	6010B
7439-92-1	Lead	14	0.42	0.20	mg/Kg			1	6010B

185

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP 4 | Lab Sample ID: 180-24960-34

Lab Name: TestAmerica Pittsburgh | Job No.: 180-24960-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/10/2013 00:00

Reporting Basis: DRY | Date Received: 09/11/2013 09:00

% Solids: 89.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	1.1	0.53	0.025	mg/Kg	J		1	6010B
7439-92-1	Lead	9.4	0.32	0.15	mg/Kg			1	6010B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP 5 Lab Sample ID: 180-24960-35

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG ID.:

Matrix: Solid Date Sampled: 09/10/2013 00:00

Reporting Basis: DRY Date Received: 09/11/2013 09:00

% Solids: 86.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	94	0.57	0.027	mg/Kg	J		1	6010B
7439-92-1	Lead	26	0.34	0.16	mg/Kg			1	6010B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00091

Analyte	ICV 180-83423/5 09/12/2013 13:26				CCV 180-83423/11 09/12/2013 13:57				CCV 180-83423/107 09/12/2013 22:39			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	241		250	96	474		500	95	481		500	96
Lead	243		250	97	478		500	96	482		500	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00091

Analyte	CCV 180-83423/119 09/12/2013 23:43				CCV 180-83423/131 09/13/2013 00:47				CCV 180-83423/143 09/13/2013 01:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	487		500	97	488		500	98	482		500	96
Lead	487		500	97	492		500	98	486		500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

ICV Source: MICV1_00029 Concentration Units: ug/L

CCV Source: MCCV1_00091

Analyte	CCV 180-83423/155 09/13/2013 02:55				CCV 180-83423/167 09/13/2013 03:59							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Cadmium	484		500	97	487		500	97				
Lead	486		500	97	489		500	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Method: 6010B Instrument ID: T

Lab Sample ID: CRI 180-83423/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRA/RLV_00033

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Cadmium	5.00	5.05		101	50-150
Lead	3.00	3.45		115	50-150

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

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 180-83423/6 09/12/2013 13:31		CCB1 180-83423/12 09/12/2013 14:03		CCB9 180-83423/108 09/12/2013 22:45		CCB10 180-83423/120 09/12/2013 23:49	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	0.140	J	5.0	U	0.170	J
Lead	3.0	3.0	U	1.46	J	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB11 180-83423/132 09/13/2013 00:53		CCB12 180-83423/144 09/13/2013 01:57		CCB13 180-83423/156 09/13/2013 03:01		CCB14 180-83423/168 09/13/2013 04:05	
		Found	C	Found	C	Found	C	Found	C
Cadmium	5.0	5.0	U	5.0	U	5.0	U	0.200	J
Lead	3.0	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-83217/1-A

Instrument Code: T Batch No.: 83423

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.38	U		6010B
7439-92-1	Lead	0.23	U		6010B

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 180-83218/1-A

Instrument Code: T Batch No.: 83423

CAS No.	Analyte	Concentration	C	Q	Method
7440-43-9	Cadmium	0.45	U		6010B
7439-92-1	Lead	0.27	U		6010B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Lab Sample ID: ICSA 180-83423/9 Instrument ID: T

Lab File ID: T30912D ICS Source: MICSAICP_00025

Concentration Units: ug/L

Analyte	True	Found	
	Solution A	Solution A	Percent Recovery
Cadmium		**1.01**	
Lead		**-0.560**	
Aluminum	*500000*	*487119*	*97*
Antimony		*0.510*	
Arsenic		*-0.0400*	
Barium		*1.27*	
Beryllium		*-0.220*	
Boron		*-1.56*	
Calcium	*500000*	*480507*	*96*
Chromium		*0.230*	
Cobalt		*0.330*	
Copper		*-4.92*	
Iron	*200000*	*193264*	*97*
Magnesium	*500000*	*509821*	*102*
Manganese		*-0.0900*	
Molybdenum		*0.860*	
Nickel		*2.06*	
Potassium		*153*	
Selenium		*5.59*	
Silicon		*13.8*	
Silver		*0.390*	
Sodium		*-510*	
Strontium		*17.1*	
Thallium		*4.35*	
Tin		*2.92*	
Titanium		*-2.58*	
Vanadium		*5.23*	
Zinc		*0.0000*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

SDG No.:

Lab Sample ID: ICSAB 180-83423/10 Instrument ID: T

Lab File ID: T30912D ICS Source: MICSAB_00037

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Cadmium	**1000**	**919**	**92**
Lead	**1000**	**922**	**92**
Aluminum	*500000*	*486486*	*97*
Antimony	*1000*	*1005*	*100*
Arsenic	*1000*	*986*	*99*
Barium	*500*	*523*	*105*
Beryllium	*500*	*484*	*97*
Boron	*1000*	*1010*	*101*
Calcium	*500000*	*483298*	*97*
Chromium	*500*	*479*	*96*
Cobalt	*500*	*461*	*92*
Copper	*500*	*517*	*103*
Iron	*200000*	*195070*	*98*
Magnesium	*500000*	*513179*	*103*
Manganese	*500*	*480*	*96*
Molybdenum	*1000*	*982*	*98*
Nickel	*1000*	*903*	*90*
Potassium	*10000*	*9244*	*92*
Selenium	*1000*	*982*	*98*
Silicon	*1000*	*1009*	*101*
Silver	*1000*	*1040*	*104*
Sodium	*10000*	*10584*	*106*
Strontium	*1000*	*1033*	*103*
Thallium	*1000*	*940*	*94*
Tin	*1000*	*963*	*96*
Titanium	*1000*	*997*	*100*
Vanadium	*500*	*492*	*98*
Zinc	*1000*	*1001*	*100*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: FDDA-B3-1FLR MS
Lab ID: 180-24960-2 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 89.9

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	7.01	3.3	5.40	69	75-125	F	6010B
Lead	57.6	9.3	54.0	90	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: FDDA-E4-1FLR MS
Lab ID: 180-24960-12 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 86.2

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cadmium	115	130	5.80	-282	75-125	4	6010B
Lead	79.1	31	58.0	84	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: FDDA-B3-1FLR MSD
Lab ID: 180-24960-2 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 89.9

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	5.64	5.35	44	75-125	22	20	F	6010B
Lead	53.9	53.5	83	75-125	7	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: FDDA-E4-1FLR MSD
Lab ID: 180-24960-12 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-24960-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 86.2

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Cadmium	134		5.74	61	75-125	16	20	4	6010B
Lead	77.8		57.4	82	75-125	2	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-83217/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.85	4.32		89	80	120		6010B
Lead	48.5	42.9		88	80	120		6010B

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 180-83218/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-24960-1

Sample Matrix: Solid LCS Source: MTAPITTMSBREV_00007

Analyte	Solid (mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Cadmium	4.50	3.97		88	80	120		6010B
Lead	45.0	39.9		89	80	120		6010B

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24960-2

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24960-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	3.3		3.42		4.5		6010B
Lead	9.3		9.78		5.6		6010B

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

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-24960-12

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-24960-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Cadmium	130		139		6.1		6010B
Lead	31		31.7		3.8		6010B

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

FORM VIII-IN

DATA USABILITY SUMMARY REPORT

CBS TOWNLEY HILL SITE

Borrow Soil Confirmation
Sampled 07/11/2013

Wet Chemistry, Metals, Volatile Organics
Semivolatile Organics, Pesticides
PCB, Herbicides

Prepared for:

VIASANT, LLC
105 Chesley Drive
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

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DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

105 Chesley Drive

Yorktown Building, Floor 2

Media, PA 19063

CBS TOWNLEY HILL SITE
Borrow Soil Confirmation
SDG: E2914
Sampled 7/11/2013

TB-001	(E2914-01)	TS-D-01	(E2914-02)
TS-C-01	(E2914-03)	CS-D-01	(E2914-04)
CS-D-02	(E2914-05)	CS-D-03	(E2914-06)
CS-D-04	(E2914-07)	CS-C-01	(E2914-08)
CS-D-05	(E2914-09)	CS-D-06	(E2914-10)
CS-D-07	(E2914-11)	CS-C-02	(E2914-12)

DATA ASSESSMENT

An ASP data package containing analytical results for eleven soil samples and a trip blank was received from VIASANT, LLC on 14Aug13. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the CBS Townley Hill Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of volatile organics, semivolatile organics, pesticides, PCB, herbicides, cyanide, hexavalent chromium and trivalent chromium. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-24, Rev. #2, August 2008, Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B; SOP HW-22, Rev.#4, August 2008, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D; SOP HW-45, Rev.#1, October 2006, Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A, SOP HW-44 Rev.#1, October 2006, Validating Pesticide Compounds by Gas Chromatography SW-846 Method 8081B; and SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) were used as technical references.

The results reported from TB-001 have been qualified as estimations due to a low surrogate standard recovery.

The 1,4-dioxane results from this project have been qualified as estimations due to poor calibration performance.

The pentachlorophenol results from TS-C-01, CS-C-01 and CS-C-02; and the benzo[a]anthracene results from CS-C-02 have been qualified as estimations due to poor calibration performance.

The benzo[k]fluoranthene result from CS-C-02 has been qualified as an estimation due to a low spiked blank recovery.

The silver, zinc and copper results from TS-C-01, CS-C-01 and CS-C-02 have been qualified as estimations due to unacceptable spiked sample recoveries.

The copper and manganese results from this group of samples have

been qualified as estimations due to poor serial dilution performance.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "UJ". Data felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 06 Sep 13
James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Samples must remain chilled to 4°C between the time of collection and the time of analysis. Soil samples must be analyzed for volatile organics and cyanide within 12 days. Extractions for semivolatile organics, pesticides, PCB and herbicides must be performed within 5 days. Sample extracts must be analyzed within 40 days. Metals samples must be analyzed within 180 days, mercury within 26 days.

This sample delivery group contained eleven soil samples that were collected from the CBS Townley Hill Site on 11Jul13. The samples were packaged with a trip blank and shipped to the laboratory, via FedEx, on the day of collection. The shipment arrived intact and packed with ice the next morning. A cooler temperature of 4°C was recorded in the laboratory at the time of receipt.

It is noted that there was no documentation to indicate that custody seals were present and intact on the cooler.

It is also noted that although CS-C-02 was held in the laboratory for six days prior to being extracted for semivolatile organics, pesticides, PCB and herbicides, data has been left unqualified. Each of these extractions was performed within seven days of collection, satisfying the SW-846 holding time requirement.

VOLATILE ORGANICS

Every program sample except TS-C-01, CS-C-01 and CS-C-02 was analyzed for volatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Three method blanks and a trip blank were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. Each of these checks satisfied the ASP acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 11Jul13 (System G), 11Jul13 (System T), and 18Jul13 (System D). Standards of 5, 20, 50, 100 and 150 µg/l were included in the calibration of System G. The System T and System D calibrations included standards of 5, 10, 20, 50, 100 and 150 µg/l. The calibrations of System T and System D also included a heated purge. With the exception of 1,4-dioxane, each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during each calibration. 1,4-Dioxane standards, however, failed to produce the required minimum levels of instrument response. The 1,4-dioxane results from this group of samples have been qualified as estimations based on this performance.

Continuing calibration checks were performed on 12Jul13, 16Jul13 and 19Jul13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability. It is noted that the response of 1,4-dioxane was again low during each check.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, an incorrect acceptance criteria was applied. When compared to the ASP requirements, unacceptable recoveries were reported for the 4-bromofluorobenzene additions to TB-001 (84%), CS-D-04 (114%) and CS-D-06 (114%). The indications of positive bias observed in CS-D-04 and CS-D-06 warrant no concern. This pair of samples produced negative results. The results reported from TB-001 have been qualified as estimations. The remaining surrogate additions were recovered successfully.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, an acceptable response was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Matrix spikes, MS/MSD, were not prepared and analyzed with this delivery group of samples. It is noted that although spiked blanks were recovered successfully, these samples provide no insight to matrix interferences that might affect the analysis of samples from this program.

Three solid spiked blanks (LCS) and two aqueous LCS were analyzed with this delivery group. The results reported for these samples included high recoveries of acetone (140%,150%). These indications of positive bias, however, warrant no concern. Acetone was not detected in this group of samples. The remaining analyte recoveries demonstrated acceptable levels of measurement accuracy and precision in samples free of matrix interferences.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced

by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicate samples were not identified in this delivery group.

SEMIVOLATILE ORGANICS

TS-C-01, CS-C-01 and CS-C-02 were analyzed for semivolatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blank were analyzed with this group of samples. Both of these blanks demonstrated acceptable chromatography and were free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 28Jun13. Standards of 10, 25, 40, 50, 60 and 80 ng were included. With one exception, each analyte targeted by this program produced

the required levels of instrument response and demonstrated an acceptable degree of linearity. Although the pentachlorophenol standards produced the required levels of instrument response, they demonstrated poor linearity. Although errors might be expected in measurements of this analyte, it may be assumed that pentachlorophenol would be detected if present in samples. Because pentachlorophenol was not found in samples, data qualifications are not required.

Calibration verifications were performed on 13Jul13, 19Jul13 and 22Jul13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an unacceptable shift in the response of pentachlorophenol. Additionally, a large shift was observed in the response of benzo[a]anthracene on 22Jul13. The pentachlorophenol results from this group of samples and the benzo[a]anthracene result from CS-C-02 have been qualified as estimations based on this performance.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, the laboratory evaluated surrogate performance based on its own acceptance criteria. When compared to the ASP requirements, unacceptably high recoveries were reported for the phenol-d6 (117.8%) and 2,4,6-tribromophenol (129%) additions to CS-C-02. These indications of positive bias, however, warrant no concern. CS-C-02 produced negative results. The remaining surrogate additions were recovered successfully.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of 2. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these requirements, acceptable performance was observed for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Two samples from an unrelated program were selected for matrix spiking. The entire analyte list was added to two portions of both samples. The first pair of spikes, which were made to a clean sample, were recovered successfully. The second additions were made to a sample that was heavily laden with organics. This MS/MSD pair produced 15 unacceptable analyte recoveries and demonstrated poor precision in measurements of 17 of the 22 targeted analytes. Because each sample from Townley Hill produced negative results, only the recoveries from the initial spiked sample are considered significant. Reported data has been left unqualified.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. The LCS associated with the analysis of TS-C-01 and CS-C-01 produced acceptable levels of analyte recovery. The LCS associated with CS-C-02 produced an elevated recovery of benzo[b]fluoranthene (112%) and a low benzo[k]fluoranthene (48%) result. The positive bias indicated by the benzo[b]fluoranthene result warrants no concern because this analyte was not found in samples. The benzo[k]fluoranthene result from CS-C-02 has been qualified as an estimation.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate was not identified in this delivery group.

PESTICIDES

TS-C-01, CS-C-01 and CS-C-02 were analyzed for pesticides by gas chromatography. These determinations were performed well and

satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and six instrument blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 09Jul13 and 19Jul13. Single component pesticide standards of 5, 25, 50, 75 and 100 ng/ml were analyzed on two chromatography columns, VB-MR2 and ZB-MR1. These standards produced an acceptable level of instrument response and demonstrated an acceptable degree of linearity during both calibrations.

Calibration verifications were performed on 16Jul13 and 19Jul13, prior to and following each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Two samples from an unrelated program were selected for matrix spiking. The entire list of targeted single component pesticides was added to two portions of each of these samples. The recoveries reported for these spikes demonstrated acceptable levels of measurement accuracy and precision. It is noted, however, that these results provide no insight to matrix interferences that might affect the analysis of samples from the Townley Hill site.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of each single component pesticide.

PCB

TS-C-01, CS-C-01 and CS-C-02 were analyzed for PCB by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and nine instrument blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to insure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

Initial instrument calibrations were performed on 10Jul13, 15Jul13 and 18Jul13. Each calibration addressed five representative peaks of AR1016 and AR1260 at concentrations of 50, 250,

500, 750 and 1000 ng/ml. These standards were analyzed on two chromatographic columns, RTX-CLPest and RTX-CLPestII. Each sequence of standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity. Single point calibrations were performed for the representative peaks of AR1221, AR1232, AR1242, AR1248, AR1254, AR1262 and AR1268.

Calibration verification standards of AR1016 and AR1260 were analyzed on 15Jul13, 19Jul13 and 22Jul13, prior to and following each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, unacceptable shifts were observed in the response of some of the individual chromatographic peaks on 15Jul13 and 22Jul13. However, when the performance of all of the peaks obtained from both columns were considered, it was possible to verify that PCB would have been detected if present in samples. Because Aroclors were not found in this group of samples, data qualifications are not required.

Unacceptable shifts were observed in the response of AR1016 during the calibration check on 19Jul13. This performance was only associated with the analysis of a method blank and a spiked blank. It is also noted that these QC samples were not analyzed on the same chromatographic system as the samples. This information, therefore, was of little value.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Two samples from an unrelated program were selected for matrix spiking. AR1016 and AR1260 were added to two portions of each

of these samples. The recoveries reported for these spikes demonstrated acceptable levels of measurement accuracy and precision. It is noted, however, that these results provide no insight to matrix interferences that might affect the analysis of samples from the Townley Hill site.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of AR1016 and AR1260.

HERBICIDES

TS-C-01, CS-C-01 and CS-C-02 were analyzed for 2,4,5-TP (Silvex) by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and eight instrument blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and were free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

Initial instrument calibrations were performed on 13Jul13 and 20Jul13. Silvex standards of 200, 500, 750, 1000 and 1500 ng/ml were analyzed on two chromatography columns, ZB-35-HT and ZB-XLB-HT. These standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations.

Calibration verifications were performed on 16Jul13, 18Jul13 and 20Jul13, prior to and following each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

2,4-DCAA was added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

TS-C-01 and a sample from an unrelated program were selected for matrix spiking. 2,4,5-TP was added to two portions of each of these samples. The recoveries reported for these spikes demonstrated acceptable levels of measurement accuracy and precision.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of 2,4,5-TP.

METALS

TS-C-01, CS-C-01 and CS-C-02 were analyzed for mercury and ICP metals. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Calibrations

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence.

The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks

associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

Contract Required Detection Limit Standards (CRDL)
To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

CRDL standards were analyzed at the beginning of each analytical sequence. A CRDL was not analyzed at the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The recoveries reported for these standards satisfied the ASP acceptance criteria.

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. A preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination.

Interference Check Sample (ICSA, ICSAB)
ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference check standards were reported from the beginning of each ICP analysis sequence. ICS standards were not analyzed at the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The ICS performance associated with the analytes targeted by this program satisfied the ASP acceptance criteria.

Predigestion Spike

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

TS-C-01 was spiked in duplicate with mercury. Two portions of a sample from an unrelated program were spiked with ICP metals. The recoveries reported for these additions included high results for copper (127%,129%) and zinc (144%,141%). Low recoveries were reported for silver (68%,69%). The silver, copper and zinc results from this project have been qualified as estimations based on this performance.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

TS-C-01 and an unrelated sample were analyzed in duplicate for mercury. An unrelated sample was also analyzed in duplicate for ICP metals. The concentrations obtained from these samples, as well as from each MS/MSD pair, demonstrated an acceptable level of measurement precision.

Laboratory Control Standards

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An LCS standard was digested and analyzed with each preparation group of samples. Acceptable recoveries were reported for each analyte targeted by this program.

Serial Dilution Samples

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

TS-C-01 and a sample from an unrelated program were prepared as mercury serial dilutions. A serial dilution of an unrelated sample was analyzed for ICP metals. Of the analytes present in these samples, at a concentration exceeding fifty times IDL, only copper and manganese differed from the diluted result by more than 10%. The copper and manganese results from this group of samples have been qualified as estimations based on this performance.

WET CHEMISTRY

TS-C-01, CS-C-01 and CS-C-02 were analyzed for hexavalent chromium, cyanide and trivalent chromium. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Hexavalent Chromium (CrVI) and Cyanide

The analysis of CrVI and cyanide samples was associated with the appropriate QC checks. The reported QC included acceptable calibration performance and clean blanks. Duplicate samples, spiked samples and spiked blanks demonstrated acceptable levels of measurement accuracy and precision.

It is noted, however, that the cyanide spiked and duplicate samples were prepared with samples from an unrelated program. This work provided no insight to matrix interferences that might bias the analysis of samples from this program.

Trivalent Chromium

Because TS-C-01, CS-C-01 and CS-C-02 produced negative CrVI results, the trivalent chromium concentration in these samples equaled the reported concentration of total chromium.

DATA QUALIFICATIONS

CBS Townley Hill Site

Sampled July 11, 2013

		SURROGATES	CALIBRATE 1,4-DIOXANE	SPIKES SILVER	SPIKES ZINC	SPIKES COPPER	SER DIL COPPER	SER DIL MANGANESE
TB-001	(E2914-01)	ALL UJ	50UJ					
TS-D-01	(E2914-02)		100UJ					
TS-C-01	(E2914-03)			0.120UJ	47.7J	14.4J	14.4J	400J
CS-D-01	(E2914-04)		100UJ					
CS-D-02	(E2914-05)		93.5UJ					
CS-D-03	(E2914-06)		100UJ					
CS-D-04	(E2914-07)		100UJ					
CS-C-01	(E2914-08)			0.115UJ	35.3J	11.0J	11.0J	290J
CS-D-05	(E2914-09)		120UJ					
CS-D-06	(E2914-10)		100UJ					
CS-D-07	(E2914-11)		110UJ					
CS-C-02	(E2914-12)			0.115UJ	41.4J	12.4J	12.4J	345J

SUMMARY OF QUALIFIED DATA

CBS Townley Hill Site

SAMPLED: July 11, 2013

	CALIBRATE PENTACHLOROPHENOL	CALIBRATE BENZO[A]ANTHRACENE	SPIKED BLANK BENZO[K]FLUORANTHENE
TB-001 (E2914-01)			
TS-D-01 (E2914-02)			
TS-C-01 (E2914-03)	37.7UJ		
CS-D-01 (E2914-04)			
CS-D-02 (E2914-05)			
CS-D-03 (E2914-06)			
CS-D-04 (E2914-07)			
CS-C-01 (E2914-08)	35.7UJ		
CS-D-05 (E2914-09)			
CS-D-06 (E2914-10)			
CS-D-07 (E2914-11)			
CS-C-02 (E2914-12)	36.0UJ	36.0UJ	36.0UJ

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13 11:30
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
		% Solid:	88.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.142	U	1	0.037	0.142	0.283	mg/Kg	07/15/13	07/17/13 12:04	9012B
Hexavalent Chromium	0.226	U	1	0.09	0.226	0.452	mg/Kg	07/15/13	07/15/13 16:45	7196A
Trivalent Chromium	10.6		1	0.113	0.113	0.113	mg/Kg	07/15/13	07/15/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13 12:26
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
		% Solid:	93.3

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.134	U	1	0.035	0.134	0.267	mg/Kg	07/15/13	07/17/13 12:08	9012B
Hexavalent Chromium	0.213	U	1	0.085	0.213	0.425	mg/Kg	07/15/13	07/15/13 16:45	7196A
Trivalent Chromium	6.27		1	0.107	0.107	0.107	mg/Kg	07/15/13	07/15/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13 12:57:00
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
		% Solid:	92.6

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.135	U	1	0.036	0.135	0.269	mg/Kg	07/19/13	07/22/13 12:14	9012B
Hexavalent Chromium	0.215	U	1	0.086	0.215	0.43	mg/Kg	07/23/13	07/23/13 10:30	7196A
Trivalent Chromium	7.27		1	0.108	0.108	0.108	mg/Kg	07/23/13	07/23/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E2914
Project:	Catlin NY	**RunNo.:**	LB66863

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.25	0.25	100	90-110	07/17/2013
Sample ID:	**ICVPB70990**						
Cyanide		mg/L	0.10	0.10	100	85-115	07/17/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.26	0.25	104	90-110	07/17/2013

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E2914
Project:	Catlin NY	**RunNo.:**	LB66941

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.25	0.25	100	90-110	07/22/2013
Sample ID:	**ICVPB71127**						
Cyanide		mg/L	0.10	0.10	100	85-115	07/22/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	07/22/2013
Sample ID:	**CCV3**						
Cyanide		mg/L	0.25	0.25	100	90-110	07/22/2013
Sample ID:	**CCV4**						
Cyanide		mg/L	0.27	0.25	108	90-110	07/22/2013

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **RunNo.:** LB66953

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	07/23/2013
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	07/23/2013
Sample ID: ICV1						
Hexavalent Chromium	mg/L	0.51	0.50	102	90-110	07/23/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **RunNo.:** LB66839

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/15/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/15/2013
Sample ID: CCB3						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/15/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/15/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** F2914

Project: Catlin NY **RunNo.:** LB66863

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/17/2013
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/17/2013
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/17/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **RunNo.:** LB66941

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/22/2013
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/22/2013
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/22/2013
Sample ID:	CCB3						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/22/2013
Sample ID:	CCB4						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/22/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **RunNo.:** LB66953

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/23/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/23/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	07/23/2013

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Preparation Blank Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: LB66839BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	07/15/2013
Sample ID: LB66863BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	07/17/2013
Sample ID: LB66941BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	07/22/2013
Sample ID: LB66953BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	07/23/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PENNINGTONS

SDG No.: E2914
Sample ID: E2906-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.390		0.097	J	2.18	1	105		07/17/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PENNINGTONSD

SDG No.: E2914
Sample ID: E2906-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.350		0.097	J	2.18	1	103		07/17/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E2914
Project: Catlin NY
Sample ID: E2914-08
Client ID: CS-C-01S
Percent Solids for Spike Sample: 93.3

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	41.00		0.09	U	43.00	2	95		07/15/2013
Hexavalent Chromium	mg/Kg	75-125	1200.00		0.09	U	1400.00	40	86		07/15/2013
Hexavalent Chromium	mg/Kg	85-115	41.00		0.09	U	43.00	2	95		07/15/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E2914
Project: Catlin NY
Sample ID: E2960-01
Client ID: ECM-CF-C3S
Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	1.990		0.034	U	2.06	1	97		07/22/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E2914
Project: Catlin NY
Sample ID: E2960-01
Client ID: ECM-CF-C3SD
Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	1.990		0.034	U	2.06	1	97		07/22/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: KY030LC054-S-130717S

SDG No.: E2914
Sample ID: E2976-10
Percent Solids for Spike Sample: 73.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	3.100		0.045	U	2.71	1	114		07/22/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: KY030LC054-S-130717SD

SDG No.: E2914
Sample ID: E2976-10
Percent Solids for Spike Sample: 73.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	3.140		0.045	U	2.71	1	116		07/22/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PSD-SS-1S

SDG No.: E2914
Sample ID: E3009-01
Percent Solids for Spike Sample: 90.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	41.00		0.089	U	44.00	2	93		07/23/2013
Hexavalent Chromium	mg/Kg	75-125	1300.00		0.089	U	1425.00	40	91		07/23/2013
Hexavalent Chromium	mg/Kg	85-115	44.00		0.089	U	44.00	2	100		07/23/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PENNINGTOND

SDG No.: E2914
Sample ID: E2906-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.097	J	0.041	J	1	81.2		07/17/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PENNINGTONSD

SDG No.: E2914
Sample ID: E2906-01
Percent Solids for Spike Sample: 91.5

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.390	2.350		1	1.7		07/17/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-01D

SDG No.: E2914
Sample ID: E2914-08
Percent Solids for Spike Sample: 93.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.09	U	0.09	U	1	0		07/15/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
SDG No.: E2914
Project: Catlin NY
Sample ID: E2960-01
Client ID: ECM-CF-C3D
Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.034	U	0.034	U	1	0		07/22/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: ECM-CF-C3SD

SDG No.: E2914
Sample ID: E2960-01
Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	1.990	1.990		1	0		07/22/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: KY030LC054-S-130717D

SDG No.: E2914
Sample ID: E2976-10
Percent Solids for Spike Sample: 73.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.045	U	0.045	U	1	0		07/22/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
SDG No.: E2914
Project: Catlin NY
Sample ID: E2976-10
Client ID: KY030LC054-S-130717SD
Percent Solids for Spike Sample: 73.7

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	3.100	3.140		1	1.3		07/22/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: PSD-SS-1D

SDG No.: E2914
Sample ID: E3009-01
Percent Solids for Spike Sample: 90.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.089	U	0.089	U	1	0		07/23/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **Run No.:** LB66839

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB66839BSS								
Hexavalent Chromium	mg/Kg	20.00	19.80		99	1	80-120	07/15/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **Run No.:** LB66863

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB66863BSS								
Cyanide		mg/Kg	10.00	9.60		96	1	80-110	07/17/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **Run No.:** LB66941

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB66941BSS								
Cyanide		mg/Kg	10.00	9.48		95	1	80-110	07/22/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E2914

Project: Catlin NY **Run No.:** LB66953

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB66953BSS								
Hexavalent Chromium	mg/Kg	20.00	19.90		100	1	80-120	07/23/2013

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	5.72		1	0.16	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010B
7440-39-3	Barium	45.9		1	0.19	1.19	2.38	mg/Kg	07/15/13	07/15/13	SW6010B
7440-41-7	Beryllium	0.07	U	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010B
7440-43-9	Cadmium	0.13	J	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010B
7440-50-8	Copper	14.4	J	1	0.15	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010B
7439-92-1	Lead	16.5		1	0.06	0.145	0.29	mg/Kg	07/15/13	07/15/13	SW6010B
7439-96-5	Manganese	400	J	1	0.09	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010B
7439-97-6	Mercury	0.006	U	1	0.002	0.006	0.011	mg/Kg	07/15/13	07/17/13	SW7471A
7440-02-0	Nickel	21.8		1	0.22	0.475	0.95	mg/Kg	07/15/13	07/15/13	SW6010B
7782-49-2	Selenium	0.24	U	1	0.2	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010B
7440-22-4	Silver	0.12	U J	1	0.07	0.12	0.24	mg/Kg	07/15/13	07/15/13	SW6010B
7440-66-6	Zinc	47.7	N J	1	0.33	0.475	0.95	mg/Kg	07/15/13	07/15/13	SW6010B

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	5.72		1	0.16	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010
7440-39-3	Barium	45.9		1	0.19	1.19	2.38	mg/Kg	07/15/13	07/15/13	SW6010
7440-41-7	Beryllium	0.07	U	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010
7440-43-9	Cadmium	0.13	J	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010
7440-47-3	Chromium	10.6		1	0.06	0.12	0.24	mg/Kg	07/15/13	07/15/13	SW6010
7440-50-8	Copper	14.4		1	0.15	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010
7439-92-1	Lead	16.5		1	0.06	0.145	0.29	mg/Kg	07/15/13	07/15/13	SW6010
7439-96-5	Manganese	400		1	0.09	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010
7439-97-6	Mercury	0.006	U	1	0.002	0.006	0.011	mg/Kg	07/15/13	07/17/13	SW7471A
7440-02-0	Nickel	21.8		1	0.22	0.475	0.95	mg/Kg	07/15/13	07/15/13	SW6010
7782-49-2	Selenium	0.24	U	1	0.2	0.24	0.48	mg/Kg	07/15/13	07/15/13	SW6010
7440-22-4	Silver	0.12	U	1	0.07	0.12	0.24	mg/Kg	07/15/13	07/15/13	SW6010
7440-66-6	Zinc	47.7	N	1	0.33	0.475	0.95	mg/Kg	07/15/13	07/15/13	SW6010

Revised report for chromium JMS

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	93.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	3.74		1	0.15	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010B
7440-39-3	Barium	39.7		1	0.18	1.135	2.27	mg/Kg	07/15/13	07/15/13	SW6010B
7440-41-7	Beryllium	0.07	U	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010B
7440-43-9	Cadmium	0.1	J	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010B
7440-50-8	Copper	11	J	1	0.15	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010B
7439-92-1	Lead	9.97		1	0.05	0.135	0.27	mg/Kg	07/15/13	07/15/13	SW6010B
7439-96-5	Manganese	290	J	1	0.09	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010B
7439-97-6	Mercury	0.005	U	1	0.002	0.005	0.01	mg/Kg	07/15/13	07/17/13	SW7471A
7440-02-0	Nickel	12.3		1	0.21	0.455	0.91	mg/Kg	07/15/13	07/15/13	SW6010B
7782-49-2	Selenium	0.225	U	1	0.19	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010B
7440-22-4	Silver	0.115	U J	1	0.07	0.115	0.23	mg/Kg	07/15/13	07/15/13	SW6010B
7440-66-6	Zinc	35.3	N J	1	0.32	0.455	0.91	mg/Kg	07/15/13	07/15/13	SW6010B

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	93.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	3.74		1	0.15	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010
7440-39-3	Barium	39.7		1	0.18	1.135	2.27	mg/Kg	07/15/13	07/15/13	SW6010
7440-41-7	Beryllium	0.07	U	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010
7440-43-9	Cadmium	0.1	J	1	0.03	0.07	0.14	mg/Kg	07/15/13	07/15/13	SW6010
7440-47-3	Chromium	6.27		1	0.06	0.115	0.23	mg/Kg	07/15/13	07/15/13	SW6010
7440-50-8	Copper	11		1	0.15	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010
7439-92-1	Lead	9.97		1	0.05	0.135	0.27	mg/Kg	07/15/13	07/15/13	SW6010
7439-96-5	Manganese	290		1	0.09	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010
7439-97-6	Mercury	0.005	U	1	0.002	0.005	0.01	mg/Kg	07/15/13	07/17/13	SW7471A
7440-02-0	Nickel	12.3		1	0.21	0.455	0.91	mg/Kg	07/15/13	07/15/13	SW6010
7782-49-2	Selenium	0.225	U	1	0.19	0.225	0.45	mg/Kg	07/15/13	07/15/13	SW6010
7440-22-4	Silver	0.115	U	1	0.07	0.115	0.23	mg/Kg	07/15/13	07/15/13	SW6010
7440-66-6	Zinc	35.3	N	1	0.32	0.455	0.91	mg/Kg	07/15/13	07/15/13	SW6010

Revised report For chromium JBS

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	4.2		1	0.15	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010B
7440-39-3	Barium	42.6		1	0.18	1.155	2.31	mg/Kg	07/19/13	07/22/13	SW6010B
7440-41-7	Beryllium	1.62		1	0.03	0.07	0.14	mg/Kg	07/19/13	07/22/13	SW6010B
7440-43-9	Cadmium	0.35		1	0.03	0.07	0.14	mg/Kg	07/19/13	07/22/13	SW6010B
7440-50-8	Copper	12.4	J	1	0.15	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010B
7439-92-1	Lead	14.2		1	0.06	0.14	0.28	mg/Kg	07/19/13	07/22/13	SW6010B
7439-96-5	Manganese	345	J	1	0.09	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010B
7439-97-6	Mercury	0.005	J	1	0.002	0.005	0.009	mg/Kg	07/18/13	07/19/13	SW7471A
7440-02-0	Nickel	14.4		1	0.21	0.46	0.92	mg/Kg	07/19/13	07/22/13	SW6010B
7782-49-2	Selenium	0.23	U	1	0.19	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010B
7440-22-4	Silver	0.115	UN*	1	0.07	0.115	0.23	mg/Kg	07/19/13	07/22/13	SW6010B
7440-66-6	Zinc	41.4	J	1	0.32	0.46	0.92	mg/Kg	07/19/13	07/22/13	SW6010B

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Metals Group1				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	4.2		1	0.15	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010
7440-39-3	Barium	42.6		1	0.18	1.155	2.31	mg/Kg	07/19/13	07/22/13	SW6010
7440-41-7	Beryllium	1.62		1	0.03	0.07	0.14	mg/Kg	07/19/13	07/22/13	SW6010
7440-43-9	Cadmium	0.35		1	0.03	0.07	0.14	mg/Kg	07/19/13	07/22/13	SW6010
7440-47-3	Chromium	7.27		1	0.06	0.115	0.23	mg/Kg	07/19/13	07/22/13	SW6010
7440-50-8	Copper	12.4		1	0.15	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010
7439-92-1	Lead	14.2		1	0.06	0.14	0.28	mg/Kg	07/19/13	07/22/13	SW6010
7439-96-5	Manganese	345		1	0.09	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010
7439-97-6	Mercury	0.005	J	1	0.002	0.005	0.009	mg/Kg	07/18/13	07/19/13	SW7471A
7440-02-0	Nickel	14.4		1	0.21	0.46	0.92	mg/Kg	07/19/13	07/22/13	SW6010
7782-49-2	Selenium	0.23	U	1	0.19	0.23	0.46	mg/Kg	07/19/13	07/22/13	SW6010
7440-22-4	Silver	0.115	UN*	1	0.07	0.115	0.23	mg/Kg	07/19/13	07/22/13	SW6010
7440-66-6	Zinc	41.4		1	0.32	0.46	0.92	mg/Kg	07/19/13	07/22/13	SW6010

Revised report for chromium JBB

JBB

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Metals Group1				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	993.75	999.0	99.5	90 - 110	P	07/15/2013	14:26	LB66836A
	Barium	520.18	503.0	103.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Beryllium	496.79	495.0	100.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Cadmium	503.11	496.0	101.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Copper	522.95	492.0	106.3	90 - 110	P	07/15/2013	14:26	LB66836A
	Lead	1031.90	1002.0	103.0	90 - 110	P	07/15/2013	14:26	LB66836A
	Manganese	502.39	499.0	100.7	90 - 110	P	07/15/2013	14:26	LB66836A
	Nickel	510.40	503.0	101.5	90 - 110	P	07/15/2013	14:26	LB66836A
	Selenium	1022.30	1003.0	101.9	90 - 110	P	07/15/2013	14:26	LB66836A
	Silver	468.93	501.0	93.6	90 - 110	P	07/15/2013	14:26	LB66836A
	Zinc	1003.40	1025.0	97.9	90 - 110	P	07/15/2013	14:26	LB66836A
LLICV01	Arsenic	16.79	20.0	84.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Barium	102.22	100.0	102.2	70 - 130	P	07/15/2013	14:37	LB66836A
	Beryllium	5.99	6.0	99.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Cadmium	6.26	6.0	104.3	70 - 130	P	07/15/2013	14:37	LB66836A
	Copper	20.60	20.0	103.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Lead	12.08	12.0	100.7	70 - 130	P	07/15/2013	14:37	LB66836A
	Manganese	20.00	20.0	100.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Nickel	39.11	40.0	97.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Selenium	21.35	20.0	106.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Silver	8.75	10.0	87.5	70 - 130	P	07/15/2013	14:37	LB66836A
	Zinc	39.51	40.0	98.8	70 - 130	P	07/15/2013	14:37	LB66836A
LLCCV01	Arsenic	17.54	20.0	87.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Barium	97.05	100.0	97.0	70 - 130	P	07/15/2013	15:04	LB66836A
	Beryllium	5.91	6.0	98.5	70 - 130	P	07/15/2013	15:04	LB66836A
	Cadmium	5.69	6.0	94.8	70 - 130	P	07/15/2013	15:04	LB66836A
	Copper	20.32	20.0	101.6	70 - 130	P	07/15/2013	15:04	LB66836A
	Lead	11.11	12.0	92.6	70 - 130	P	07/15/2013	15:04	LB66836A
	Manganese	19.51	20.0	97.6	70 - 130	P	07/15/2013	15:04	LB66836A
	Nickel	39.48	40.0	98.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Selenium	18.14	20.0	90.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Silver	8.68	10.0	86.8	70 - 130	P	07/15/2013	15:04	LB66836A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Zinc	38.68	40.0	96.7	70 - 130	P	07/15/2013	15:04	LB66836A
CCV01	Arsenic	4960.70	5000.0	99.2	90 - 110	P	07/15/2013	15:08	LB66836A
	Barium	9892.20	10000.0	98.9	90 - 110	P	07/15/2013	15:08	LB66836A
	Beryllium	247.06	250.0	98.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Cadmium	2467.50	2500.0	98.7	90 - 110	P	07/15/2013	15:08	LB66836A
	Copper	1237.70	1250.0	99.0	90 - 110	P	07/15/2013	15:08	LB66836A
	Lead	4929.40	5000.0	98.6	90 - 110	P	07/15/2013	15:08	LB66836A
	Manganese	2467.80	2500.0	98.7	90 - 110	P	07/15/2013	15:08	LB66836A
	Nickel	2471.10	2500.0	98.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Selenium	4989.20	5000.0	99.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Silver	1227.10	1250.0	98.2	90 - 110	P	07/15/2013	15:08	LB66836A
	Zinc	2650.90	2500.0	106.0	90 - 110	P	07/15/2013	15:08	LB66836A
LLCCV02	Arsenic	15.24	20.0	76.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Barium	94.03	100.0	94.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Beryllium	6.01	6.0	100.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Cadmium	5.66	6.0	94.3	70 - 130	P	07/15/2013	15:49	LB66836A
	Copper	20.95	20.0	104.8	70 - 130	P	07/15/2013	15:49	LB66836A
	Lead	11.40	12.0	95.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Manganese	22.65	20.0	113.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Nickel	38.52	40.0	96.3	70 - 130	P	07/15/2013	15:49	LB66836A
	Selenium	18.84	20.0	94.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Silver	8.40	10.0	84.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Zinc	38.64	40.0	96.6	70 - 130	P	07/15/2013	15:49	LB66836A
CCV02	Arsenic	4892.20	5000.0	97.8	90 - 110	P	07/15/2013	15:52	LB66836A
	Barium	9800.70	10000.0	98.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Beryllium	243.83	250.0	97.5	90 - 110	P	07/15/2013	15:52	LB66836A
	Cadmium	2418.10	2500.0	96.7	90 - 110	P	07/15/2013	15:52	LB66836A
	Copper	1212.00	1250.0	97.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Lead	4819.00	5000.0	96.4	90 - 110	P	07/15/2013	15:52	LB66836A
	Manganese	2409.30	2500.0	96.4	90 - 110	P	07/15/2013	15:52	LB66836A
	Nickel	2424.60	2500.0	97.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Selenium	4912.10	5000.0	98.2	90 - 110	P	07/15/2013	15:52	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Nickel	2375.60	2500.0	95.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Selenium	4819.10	5000.0	96.4	90 - 110	P	07/15/2013	19:56	LB66836A
	Silver	1175.00	1250.0	94.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Zinc	2536.40	2500.0	101.5	90 - 110	P	07/15/2013	19:56	LB66836A
CCV09	Arsenic	4887.40	5000.0	97.7	90 - 110	P	07/15/2013	20:36	LB66836A
	Barium	9646.90	10000.0	96.5	90 - 110	P	07/15/2013	20:36	LB66836A
	Beryllium	242.37	250.0	96.9	90 - 110	P	07/15/2013	20:36	LB66836A
	Cadmium	2433.50	2500.0	97.3	90 - 110	P	07/15/2013	20:36	LB66836A
	Copper	1201.60	1250.0	96.1	90 - 110	P	07/15/2013	20:36	LB66836A
	Lead	4795.20	5000.0	95.9	90 - 110	P	07/15/2013	20:36	LB66836A
	Manganese	2386.00	2500.0	95.4	90 - 110	P	07/15/2013	20:36	LB66836A
	Nickel	2419.70	2500.0	96.8	90 - 110	P	07/15/2013	20:36	LB66836A
	Selenium	4904.30	5000.0	98.1	90 - 110	P	07/15/2013	20:36	LB66836A
	Silver	1199.80	1250.0	96.0	90 - 110	P	07/15/2013	20:36	LB66836A
	Zinc	2368.70	2500.0	94.7	90 - 110	P	07/15/2013	20:36	LB66836A
CCV10	Arsenic	4759.80	5000.0	95.2	90 - 110	P	07/15/2013	21:17	LB66836A
	Barium	9343.60	10000.0	93.4	90 - 110	P	07/15/2013	21:17	LB66836A
	Beryllium	237.11	250.0	94.8	90 - 110	P	07/15/2013	21:17	LB66836A
	Cadmium	2368.90	2500.0	94.8	90 - 110	P	07/15/2013	21:17	LB66836A
	Copper	1177.60	1250.0	94.2	90 - 110	P	07/15/2013	21:17	LB66836A
	Lead	4687.20	5000.0	93.7	90 - 110	P	07/15/2013	21:17	LB66836A
	Manganese	2348.90	2500.0	94.0	90 - 110	P	07/15/2013	21:17	LB66836A
	Nickel	2360.00	2500.0	94.4	90 - 110	P	07/15/2013	21:17	LB66836A
	Selenium	4782.40	5000.0	95.6	90 - 110	P	07/15/2013	21:17	LB66836A
	Silver	1169.00	1250.0	93.5	90 - 110	P	07/15/2013	21:17	LB66836A
	Zinc	2522.80	2500.0	100.9	90 - 110	P	07/15/2013	21:17	LB66836A
LLCCV03	Arsenic	17.26	20.0	86.3	70 - 130	P	07/15/2013	22:01	LB66836A
	Barium	77.02	100.0	77.0	70 - 130	P	07/15/2013	22:01	LB66836A
	Beryllium	5.81	6.0	96.8	70 - 130	P	07/15/2013	22:01	LB66836A
	Cadmium	5.59	6.0	93.2	70 - 130	P	07/15/2013	22:01	LB66836A
	Copper	20.08	20.0	100.4	70 - 130	P	07/15/2013	22:01	LB66836A
	Lead	12.99	12.0	108.2	70 - 130	P	07/15/2013	22:01	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Manganese	20.84	20.0	104.2	70 - 130	P	07/15/2013	22:01	LB66836A
	Nickel	38.18	40.0	95.4	70 - 130	P	07/15/2013	22:01	LB66836A
	Selenium	19.10	20.0	95.5	70 - 130	P	07/15/2013	22:01	LB66836A
	Silver	7.81	10.0	78.1	70 - 130	P	07/15/2013	22:01	LB66836A
	Zinc	38.21	40.0	95.5	70 - 130	P	07/15/2013	22:01	LB66836A
CCV11	Arsenic	4741.50	5000.0	94.8	90 - 110	P	07/15/2013	22:04	LB66836A
	Barium	9127.50	10000.0	91.3	90 - 110	P	07/15/2013	22:04	LB66836A
	Beryllium	236.18	250.0	94.5	90 - 110	P	07/15/2013	22:04	LB66836A
	Cadmium	2352.70	2500.0	94.1	90 - 110	P	07/15/2013	22:04	LB66836A
	Copper	1174.80	1250.0	94.0	90 - 110	P	07/15/2013	22:04	LB66836A
	Lead	4659.90	5000.0	93.2	90 - 110	P	07/15/2013	22:04	LB66836A
	Manganese	2338.50	2500.0	93.5	90 - 110	P	07/15/2013	22:04	LB66836A
	Nickel	2346.70	2500.0	93.9	90 - 110	P	07/15/2013	22:04	LB66836A
	Selenium	4757.50	5000.0	95.2	90 - 110	P	07/15/2013	22:04	LB66836A
	Silver	1159.20	1250.0	92.7	90 - 110	P	07/15/2013	22:04	LB66836A
	Zinc	2509.60	2500.0	100.4	90 - 110	P	07/15/2013	22:04	LB66836A
LLCCV04	Arsenic	18.83	20.0	94.2	70 - 130	P	07/15/2013	22:25	LB66836A
	Barium	76.31	100.0	76.3	70 - 130	P	07/15/2013	22:25	LB66836A
	Beryllium	5.94	6.0	99.0	70 - 130	P	07/15/2013	22:25	LB66836A
	Cadmium	5.60	6.0	93.3	70 - 130	P	07/15/2013	22:25	LB66836A
	Copper	19.78	20.0	98.9	70 - 130	P	07/15/2013	22:25	LB66836A
	Lead	12.55	12.0	104.6	70 - 130	P	07/15/2013	22:25	LB66836A
	Manganese	20.22	20.0	101.1	70 - 130	P	07/15/2013	22:25	LB66836A
	Nickel	38.43	40.0	96.1	70 - 130	P	07/15/2013	22:25	LB66836A
	Selenium	22.75	20.0	113.8	70 - 130	P	07/15/2013	22:25	LB66836A
	Silver	7.58	10.0	75.8	70 - 130	P	07/15/2013	22:25	LB66836A
	Zinc	37.90	40.0	94.8	70 - 130	P	07/15/2013	22:25	LB66836A
CCV12	Arsenic	4750.00	5000.0	95.0	90 - 110	P	07/15/2013	22:28	LB66836A
	Barium	8990.90	10000.0	89.9	90 - 110	P	07/15/2013	22:28	LB66836A
	Beryllium	236.80	250.0	94.7	90 - 110	P	07/15/2013	22:28	LB66836A
	Cadmium	2364.60	2500.0	94.6	90 - 110	P	07/15/2013	22:28	LB66836A
	Copper	1178.70	1250.0	94.3	90 - 110	P	07/15/2013	22:28	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Lead	4678.70	5000.0	93.6	90 - 110	P	07/15/2013	22:28	LB66836A
	Manganese	2354.00	2500.0	94.2	90 - 110	P	07/15/2013	22:28	LB66836A
	Nickel	2354.40	2500.0	94.2	90 - 110	P	07/15/2013	22:28	LB66836A
	Selenium	4773.50	5000.0	95.5	90 - 110	P	07/15/2013	22:28	LB66836A
	Silver	1163.10	1250.0	93.0	90 - 110	P	07/15/2013	22:28	LB66836A
	Zinc	2515.30	2500.0	100.6	90 - 110	P	07/15/2013	22:28	LB66836A
ICV01	Arsenic	989.71	999.0	99.1	90 - 110	P	07/22/2013	12:23	LB66948
	Barium	529.89	503.0	105.3	90 - 110	P	07/22/2013	12:23	LB66948
	Beryllium	491.19	495.0	99.2	90 - 110	P	07/22/2013	12:23	LB66948
	Cadmium	487.10	496.0	98.2	90 - 110	P	07/22/2013	12:23	LB66948
	Copper	528.72	492.0	107.5	90 - 110	P	07/22/2013	12:23	LB66948
	Lead	1019.40	1002.0	101.7	90 - 110	P	07/22/2013	12:23	LB66948
	Manganese	508.82	499.0	102.0	90 - 110	P	07/22/2013	12:23	LB66948
	Nickel	502.70	503.0	99.9	90 - 110	P	07/22/2013	12:23	LB66948
	Selenium	1018.40	1003.0	101.5	90 - 110	P	07/22/2013	12:23	LB66948
	Silver	492.76	501.0	98.4	90 - 110	P	07/22/2013	12:23	LB66948
	Zinc	1021.90	1025.0	99.7	90 - 110	P	07/22/2013	12:23	LB66948
LLICV01	Arsenic	17.19	20.0	86.0	70 - 130	P	07/22/2013	12:31	LB66948
	Barium	100.63	100.0	100.6	70 - 130	P	07/22/2013	12:31	LB66948
	Beryllium	5.89	6.0	98.2	70 - 130	P	07/22/2013	12:31	LB66948
	Cadmium	6.03	6.0	100.5	70 - 130	P	07/22/2013	12:31	LB66948
	Copper	21.10	20.0	105.5	70 - 130	P	07/22/2013	12:31	LB66948
	Lead	13.48	12.0	112.3	70 - 130	P	07/22/2013	12:31	LB66948
	Manganese	19.63	20.0	98.2	70 - 130	P	07/22/2013	12:31	LB66948
	Nickel	37.41	40.0	93.5	70 - 130	P	07/22/2013	12:31	LB66948
	Selenium	22.18	20.0	110.9	70 - 130	P	07/22/2013	12:31	LB66948
	Silver	8.43	10.0	84.3	70 - 130	P	07/22/2013	12:31	LB66948
	Zinc	39.31	40.0	98.3	70 - 130	P	07/22/2013	12:31	LB66948
LLCCV01	Arsenic	15.92	20.0	79.6	70 - 130	P	07/22/2013	13:11	LB66948
	Barium	96.93	100.0	96.9	70 - 130	P	07/22/2013	13:11	LB66948
	Beryllium	5.86	6.0	97.7	70 - 130	P	07/22/2013	13:11	LB66948
	Cadmium	5.39	6.0	89.8	70 - 130	P	07/22/2013	13:11	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Barium	91.81	100.0	91.8	70 - 130	P	07/22/2013	17:16	LB66948
	Beryllium	5.85	6.0	97.5	70 - 130	P	07/22/2013	17:16	LB66948
	Cadmium	5.66	6.0	94.3	70 - 130	P	07/22/2013	17:16	LB66948
	Copper	20.86	20.0	104.3	70 - 130	P	07/22/2013	17:16	LB66948
	Lead	12.32	12.0	102.7	70 - 130	P	07/22/2013	17:16	LB66948
	Manganese	20.22	20.0	101.1	70 - 130	P	07/22/2013	17:16	LB66948
	Nickel	37.88	40.0	94.7	70 - 130	P	07/22/2013	17:16	LB66948
	Selenium	22.91	20.0	114.6	70 - 130	P	07/22/2013	17:16	LB66948
	Silver	8.43	10.0	84.3	70 - 130	P	07/22/2013	17:16	LB66948
	Zinc	40.17	40.0	100.4	70 - 130	P	07/22/2013	17:16	LB66948
CCV06	Arsenic	4970.20	5000.0	99.4	90 - 110	P	07/22/2013	18:47	LB66948
	Barium	9980.00	10000.0	99.8	90 - 110	P	07/22/2013	18:47	LB66948
	Beryllium	247.34	250.0	98.9	90 - 110	P	07/22/2013	18:47	LB66948
	Cadmium	2467.30	2500.0	98.7	90 - 110	P	07/22/2013	18:47	LB66948
	Copper	1240.00	1250.0	99.2	90 - 110	P	07/22/2013	18:47	LB66948
	Lead	4982.00	5000.0	99.6	90 - 110	P	07/22/2013	18:47	LB66948
	Manganese	2443.50	2500.0	97.7	90 - 110	P	07/22/2013	18:47	LB66948
	Nickel	2460.50	2500.0	98.4	90 - 110	P	07/22/2013	18:47	LB66948
	Selenium	5031.80	5000.0	100.6	90 - 110	P	07/22/2013	18:47	LB66948
	Silver	1257.40	1250.0	100.6	90 - 110	P	07/22/2013	18:47	LB66948
	Zinc	2493.50	2500.0	99.7	90 - 110	P	07/22/2013	18:47	LB66948
CCV07	Arsenic	4932.40	5000.0	98.6	90 - 110	P	07/22/2013	19:33	LB66948
	Barium	10036.00	10000.0	100.4	90 - 110	P	07/22/2013	19:33	LB66948
	Beryllium	246.31	250.0	98.5	90 - 110	P	07/22/2013	19:33	LB66948
	Cadmium	2440.90	2500.0	97.6	90 - 110	P	07/22/2013	19:33	LB66948
	Copper	1231.30	1250.0	98.5	90 - 110	P	07/22/2013	19:33	LB66948
	Lead	4935.00	5000.0	98.7	90 - 110	P	07/22/2013	19:33	LB66948
	Manganese	2435.90	2500.0	97.4	90 - 110	P	07/22/2013	19:33	LB66948
	Nickel	2442.90	2500.0	97.7	90 - 110	P	07/22/2013	19:33	LB66948
	Selenium	4988.50	5000.0	99.8	90 - 110	P	07/22/2013	19:33	LB66948
	Silver	1253.70	1250.0	100.3	90 - 110	P	07/22/2013	19:33	LB66948
	Zinc	2470.10	2500.0	98.8	90 - 110	P	07/22/2013	19:33	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L.	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Arsenic	17.99	20.0	90.0	70 - 130	P	07/22/2013	19:37	LB66948
	Barium	93.06	100.0	93.1	70 - 130	P	07/22/2013	19:37	LB66948
	Beryllium	5.82	6.0	97.0	70 - 130	P	07/22/2013	19:37	LB66948
	Cadmium	5.71	6.0	95.2	70 - 130	P	07/22/2013	19:37	LB66948
	Copper	21.38	20.0	106.9	70 - 130	P	07/22/2013	19:37	LB66948
	Lead	12.55	12.0	104.6	70 - 130	P	07/22/2013	19:37	LB66948
	Manganese	19.94	20.0	99.7	70 - 130	P	07/22/2013	19:37	LB66948
	Nickel	38.34	40.0	95.8	70 - 130	P	07/22/2013	19:37	LB66948
	Selenium	24.33	20.0	121.6	70 - 130	P	07/22/2013	19:37	LB66948
	Silver	9.21	10.0	92.1	70 - 130	P	07/22/2013	19:37	LB66948
	Zinc	40.25	40.0	100.6	70 - 130	P	07/22/2013	19:37	LB66948
CCV08	Arsenic	4928.10	5000.0	98.6	90 - 110	P	07/22/2013	20:24	LB66948
	Barium	10085.00	10000.0	100.8	90 - 110	P	07/22/2013	20:24	LB66948
	Beryllium	245.01	250.0	98.0	90 - 110	P	07/22/2013	20:24	LB66948
	Cadmium	2416.70	2500.0	96.7	90 - 110	P	07/22/2013	20:24	LB66948
	Copper	1229.20	1250.0	98.3	90 - 110	P	07/22/2013	20:24	LB66948
	Lead	4873.80	5000.0	97.5	90 - 110	P	07/22/2013	20:24	LB66948
	Manganese	2441.50	2500.0	97.7	90 - 110	P	07/22/2013	20:24	LB66948
	Nickel	2424.20	2500.0	97.0	90 - 110	P	07/22/2013	20:24	LB66948
	Selenium	4982.50	5000.0	99.6	90 - 110	P	07/22/2013	20:24	LB66948
	Silver	1249.80	1250.0	100.0	90 - 110	P	07/22/2013	20:24	LB66948
	Zinc	2452.00	2500.0	98.1	90 - 110	P	07/22/2013	20:24	LB66948
LLCCV07	Arsenic	17.20	20.0	86.0	70 - 130	P	07/22/2013	20:27	LB66948
	Barium	92.45	100.0	92.4	70 - 130	P	07/22/2013	20:27	LB66948
	Beryllium	5.63	6.0	93.8	70 - 130	P	07/22/2013	20:27	LB66948
	Cadmium	5.21	6.0	86.8	70 - 130	P	07/22/2013	20:27	LB66948
	Copper	21.03	20.0	105.2	70 - 130	P	07/22/2013	20:27	LB66948
	Lead	11.28	12.0	94.0	70 - 130	P	07/22/2013	20:27	LB66948
	Manganese	19.35	20.0	96.8	70 - 130	P	07/22/2013	20:27	LB66948
	Nickel	38.06	40.0	95.2	70 - 130	P	07/22/2013	20:27	LB66948
	Selenium	26.62	20.0	133.1	70 - 130	P	07/22/2013	20:27	LB66948
	Silver	10.67	10.0	106.7	70 - 130	P	07/22/2013	20:27	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Mercury	4.25	4.0	106.2	90 - 110	CV	07/17/2013	09:36	LB66857
CCV01	Mercury	5.15	5.0	103.0	90 - 110	CV	07/17/2013	09:40	LB66857
CCV02	Mercury	5.21	5.0	104.2	90 - 110	CV	07/17/2013	10:06	LB66857
CCV03	Mercury	5.21	5.0	104.2	90 - 110	CV	07/17/2013	10:31	LB66857
ICV01	Mercury	3.85	4.0	96.2	90 - 110	CV	07/19/2013	11:17	LB66914
CCV01	Mercury	5.01	5.0	100.2	90 - 110	CV	07/19/2013	11:21	LB66914
CCV02	Mercury	4.84	5.0	96.8	90 - 110	CV	07/19/2013	11:54	LB66914
CCV03	Mercury	4.83	5.0	96.6	90 - 110	CV	07/19/2013	12:23	LB66914
CCV04	Mercury	4.84	5.0	96.8	90 - 110	CV	07/19/2013	12:48	LB66914
CCV05	Mercury	4.77	5.0	95.4	90 - 110	CV	07/19/2013	13:14	LB66914
CCV06	Mercury	4.81	5.0	96.2	90 - 110	CV	07/19/2013	13:39	LB66914
CCV07	Mercury	4.62	5.0	92.4	90 - 110	CV	07/19/2013	14:11	LB66914

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source:

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	18.98	20.0	94.9	40 - 160	P	07/15/2013	14:44	LB66836A
	Barium	105.34	100.0	105.3	40 - 160	P	07/15/2013	14:44	LB66836A
	Beryllium	6.07	6.0	101.2	40 - 160	P	07/15/2013	14:44	LB66836A
	Cadmium	5.70	6.0	95.0	40 - 160	P	07/15/2013	14:44	LB66836A
	Copper	19.95	20.0	99.8	40 - 160	P	07/15/2013	14:44	LB66836A
	Lead	12.22	12.0	101.8	0 - 200	P	07/15/2013	14:44	LB66836A
	Manganese	20.08	20.0	100.4	40 - 160	P	07/15/2013	14:44	LB66836A
	Nickel	39.76	40.0	99.4	40 - 160	P	07/15/2013	14:44	LB66836A
	Selenium	20.11	20.0	100.6	40 - 160	P	07/15/2013	14:44	LB66836A
	Silver	8.65	10.0	86.5	40 - 160	P	07/15/2013	14:44	LB66836A
	Zinc	39.49	40.0	98.7	40 - 160	P	07/15/2013	14:44	LB66836A
CRI01	Mercury	0.18	0.2	90.0	70 - 130	CV	07/17/2013	09:44	LB66857
CRI01	Mercury	0.17	0.2	85.0	70 - 130	CV	07/19/2013	11:28	LB66914
CRI01	Arsenic	16.91	20.0	84.6	40 - 160	P	07/22/2013	12:39	LB66948
	Barium	97.86	100.0	97.9	40 - 160	P	07/22/2013	12:39	LB66948
	Beryllium	5.74	6.0	95.7	40 - 160	P	07/22/2013	12:39	LB66948
	Cadmium	5.09	6.0	84.8	40 - 160	P	07/22/2013	12:39	LB66948
	Copper	20.46	20.0	102.3	40 - 160	P	07/22/2013	12:39	LB66948
	Lead	11.64	12.0	97.0	0 - 200	P	07/22/2013	12:39	LB66948
	Manganese	19.52	20.0	97.6	40 - 160	P	07/22/2013	12:39	LB66948
	Nickel	37.01	40.0	92.5	40 - 160	P	07/22/2013	12:39	LB66948
	Selenium	22.60	20.0	113.0	40 - 160	P	07/22/2013	12:39	LB66948
	Silver	7.07	10.0	70.7	40 - 160	P	07/22/2013	12:39	LB66948
	Zinc	40.03	40.0	100.1	40 - 160	P	07/22/2013	12:39	LB66948
CRI01	Arsenic	20.21	20.0	101.0	40 - 160	P	07/23/2013	12:04	LB66970A
	Barium	99.19	100.0	99.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Beryllium	5.98	6.0	99.7	40 - 160	P	07/23/2013	12:04	LB66970A
	Cadmium	5.47	6.0	91.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Copper	21.28	20.0	106.4	40 - 160	P	07/23/2013	12:04	LB66970A
	Lead	11.46	12.0	95.5	0 - 200	P	07/23/2013	12:04	LB66970A
	Manganese	20.10	20.0	100.5	40 - 160	P	07/23/2013	12:04	LB66970A
	Nickel	37.01	40.0	92.5	40 - 160	P	07/23/2013	12:04	LB66970A
	Selenium	22.85	20.0	114.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Silver	9.87	10.0	98.7	40 - 160	P	07/23/2013	12:04	LB66970A

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source:

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Zinc	40.50	40.0	101.2	40 - 160	P	07/23/2013	12:04	LB66970A

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	14:41	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	14:41	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	14:41	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	14:41	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	14:41	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	14:41	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	14:41	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	14:41	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	14:41	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	14:41	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	14:41	LB66836A
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	15:11	LB66836A
	Barium	4.3	+/-50.0	J	4.0	50.0	P	07/15/2013	15:11	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	15:11	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	15:11	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	15:11	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	15:11	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	15:11	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	15:11	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	15:11	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	15:11	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	15:11	LB66836A
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	15:55	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	15:55	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	15:55	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	15:55	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	15:55	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	15:55	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	15:55	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	15:55	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	15:55	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	15:55	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	15:55	LB66836A
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	16:36	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	16:36	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	16:36	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	16:36	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	19:19	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	19:19	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	19:19	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	19:19	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	19:19	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	19:19	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	19:19	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	19:19	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	19:19	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	19:19	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	19:19	LB66836A
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	19:59	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	19:59	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	19:59	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	19:59	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	19:59	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	19:59	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	19:59	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	19:59	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	19:59	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	19:59	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	19:59	LB66836A
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	20:40	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	20:40	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	20:40	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	20:40	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	20:40	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	20:40	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	20:40	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	20:40	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	20:40	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	20:40	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	20:40	LB66836A
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	21:20	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	21:20	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	21:20	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	21:20	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	21:20	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	21:20	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	21:20	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	21:20	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	21:20	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	21:20	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	21:20	LB66836A
CCB11	Arsenic	4.5	+/-10.0	J	4.2	10.0	P	07/15/2013	22:08	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	22:08	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	22:08	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	22:08	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	22:08	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	22:08	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	22:08	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	22:08	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	22:08	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	22:08	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	22:08	LB66836A
CCB12	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	22:31	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	22:31	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	22:31	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	22:31	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	22:31	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	22:31	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	22:31	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	22:31	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	22:31	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	22:31	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	22:31	LB66836A
ICB01	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	09:38	LB66857
CCB01	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	09:42	LB66857
CCB02	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	10:08	LB66857
CCB03	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	10:33	LB66857
ICB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:19	LB66914
CCB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:23	LB66914
CCB02	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:56	LB66914
CCB03	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	12:25	LB66914
CCB04	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	12:50	LB66914
CCB05	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	13:16	LB66914
CCB06	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	13:41	LB66914

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	14:13	LB66914
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	12:35	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	12:35	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	12:35	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	12:35	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	12:35	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	12:35	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	12:35	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	12:35	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	12:35	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	12:35	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	12:35	LB66948
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	13:22	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	13:22	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	13:22	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	13:22	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	13:22	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	13:22	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	13:22	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	13:22	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	13:22	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	13:22	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	13:22	LB66948
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	14:33	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	14:33	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	14:33	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	14:33	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	14:33	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	14:33	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	14:33	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	14:33	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	14:33	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	14:33	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	14:33	LB66948
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	15:25	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	15:25	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	15:25	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	15:25	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	15:25	LB66948

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	15:25	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	15:25	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	15:25	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	15:25	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	15:25	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	15:25	LB66948
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	16:21	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	16:21	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	16:21	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	16:21	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	16:21	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	16:21	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	16:21	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	16:21	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	16:21	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	16:21	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	16:21	LB66948
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	17:20	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	17:20	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	17:20	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	17:20	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	17:20	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	17:20	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	17:20	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	17:20	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	17:20	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	17:20	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	17:20	LB66948
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	18:51	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	18:51	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	18:51	LB66948
	Cadmium	1.2	+/-3.0	J	0.5	3.0	P	07/22/2013	18:51	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	18:51	LB66948
	Lead	3.1	+/-6.0	J	2.6	6.0	P	07/22/2013	18:51	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	18:51	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	18:51	LB66948
	Selenium	6.0	+/-10.0	J	4.8	10.0	P	07/22/2013	18:51	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	18:51	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	18:51	LB66948

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	19:41	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	19:41	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	19:41	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	19:41	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	19:41	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	19:41	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	19:41	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	19:41	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	19:41	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	19:41	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	19:41	LB66948
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	20:31	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	20:31	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	20:31	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	20:31	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	20:31	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	20:31	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	20:31	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	20:31	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	20:31	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	20:31	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	20:31	LB66948
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	21:19	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	21:19	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	21:19	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	21:19	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	21:19	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	21:19	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	21:19	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	21:19	LB66948
	Selenium	5.7	+/-10.0	J	4.8	10.0	P	07/22/2013	21:19	LB66948
	Silver	2.0	+/-5.0	J	1.5	5.0	P	07/22/2013	21:19	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	21:19	LB66948
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	12:00	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	12:00	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	12:00	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	12:00	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	12:00	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	12:00	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	12:00	LB66970A

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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	MDL mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB70964BL		**SOIL**		**Batch Number:**		**PB70964**		**Prep Date:**	**07/15/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	07/15/2013	20:57	LB66836A
	Barium	0.200	<2.500	U	0.200	2.500	P	07/15/2013	20:57	LB66836A
	Beryllium	0.030	<0.150	U	0.030	0.150	P	07/15/2013	20:57	LB66836A
	Cadmium	0.030	<0.150	U	0.030	0.150	P	07/15/2013	20:57	LB66836A
	Copper	0.160	<0.500	U	0.160	0.500	P	07/15/2013	20:57	LB66836A
	Lead	0.060	<0.300	U	0.060	0.300	P	07/15/2013	20:57	LB66836A
	Manganese	0.095	<0.500	U	0.095	0.500	P	07/15/2013	20:57	LB66836A
	Nickel	0.230	<1.000	U	0.230	1.000	P	07/15/2013	20:57	LB66836A
	Selenium	0.205	<0.500	U	0.205	0.500	P	07/15/2013	20:57	LB66836A
	Silver	0.075	<0.250	U	0.075	0.250	P	07/15/2013	20:57	LB66836A
	Zinc	0.350	<1.000	U	0.350	1.000	P	07/15/2013	20:57	LB66836A
71007BL		**SOIL**		**Batch Number:**		**PB71007**		**Prep Date:**	**07/15/2013**	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	07/17/2013	09:51	LB66857
PB71103BL		**SOIL**		**Batch Number:**		**PB71103**		**Prep Date:**	**07/18/2013**	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	07/19/2013	12:33	LB66914
PB71114BL		**SOIL**		**Batch Number:**		**PB71114**		**Prep Date:**	**07/19/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	07/23/2013	13:34	LB66970A
	Barium	0.200	<2.500	U	0.200	2.500	P	07/23/2013	13:34	LB66970A
	Beryllium	0.030	<0.150	U	0.030	0.150	P	07/23/2013	13:34	LB66970A
	Cadmium	0.030	<0.150	U	0.030	0.150	P	07/23/2013	13:34	LB66970A
	Copper	0.160	<0.500	U	0.160	0.500	P	07/23/2013	13:34	LB66970A
	Lead	0.062	<0.300	J	0.060	0.300	P	07/23/2013	13:34	LB66970A
	Manganese	0.095	<0.500	U	0.095	0.500	P	07/23/2013	13:34	LB66970A
	Nickel	0.230	<1.000	U	0.230	1.000	P	07/23/2013	13:34	LB66970A
	Selenium	0.205	<0.500	U	0.205	0.500	P	07/23/2013	13:34	LB66970A
	Silver	0.075	<0.250	U	0.075	0.250	P	07/23/2013	13:34	LB66970A
	Zinc	0.350	<1.000	U	0.350	1.000	P	07/23/2013	13:34	LB66970A

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	-10.7				07/15/2013	14:47	LB66836A
	Barium	8.2	2	410.0	-9900 - 10100%	07/15/2013	14:47	LB66836A
	Beryllium	-2.5				07/15/2013	14:47	LB66836A
	Cadmium	-0.29				07/15/2013	14:47	LB66836A
	Copper	25.3	23	110.0	-9 - 209%	07/15/2013	14:47	LB66836A
	Lead	10.4	10	104.0	0 - 200%	07/15/2013	14:47	LB66836A
	Manganese	18.4	19	96.8	21 - 179%	07/15/2013	14:47	LB66836A
	Nickel	21.7	21	103.3	-90 - 290%	07/15/2013	14:47	LB66836A
	Selenium	-0.21				07/15/2013	14:47	LB66836A
	Silver	-2.1				07/15/2013	14:47	LB66836A
	Zinc	27.3	28	97.5	-114 - 314%	07/15/2013	14:47	LB66836A
ICSAB01	Arsenic	85.4	101	84.6	80 - 120%	07/15/2013	14:51	LB66836A
	Barium	543	517	105.0	60 - 140%	07/15/2013	14:51	LB66836A
	Beryllium	508	504	100.8	80 - 120%	07/15/2013	14:51	LB66836A
	Cadmium	987	989	99.8	80 - 120%	07/15/2013	14:51	LB66836A
	Copper	526	550	95.6	80 - 120%	07/15/2013	14:51	LB66836A
	Lead	63.8	61	104.6	80 - 120%	07/15/2013	14:51	LB66836A
	Manganese	506	507	99.8	80 - 120%	07/15/2013	14:51	LB66836A
	Nickel	1010	983	102.7	80 - 120%	07/15/2013	14:51	LB66836A
	Selenium	49.1	51	96.3	34 - 166%	07/15/2013	14:51	LB66836A
	Silver	200	205	97.6	80 - 120%	07/15/2013	14:51	LB66836A
	Zinc	1030	986	104.5	80 - 120%	07/15/2013	14:51	LB66836A
ICSA01	Arsenic	-14.7				07/22/2013	12:51	LB66948
	Barium	2.7	2	135.0	-9900 - 10100%	07/22/2013	12:51	LB66948
	Beryllium	5.2				07/22/2013	12:51	LB66948
	Cadmium	1.1				07/22/2013	12:51	LB66948
	Copper	25.5	23	110.9	-9 - 209%	07/22/2013	12:51	LB66948
	Lead	11.1	10	111.0	0 - 200%	07/22/2013	12:51	LB66948
	Manganese	21.2	19	111.6	21 - 179%	07/22/2013	12:51	LB66948
	Nickel	24.9	21	118.6	-90 - 290%	07/22/2013	12:51	LB66948
	Selenium	7.0				07/22/2013	12:51	LB66948
	Silver	-8.1				07/22/2013	12:51	LB66948
	Zinc	32.4	28	115.7	-114 - 314%	07/22/2013	12:51	LB66948
ICSAB01	Arsenic	87.9	101	87.0	80 - 120%	07/22/2013	12:55	LB66948
	Barium	490	517	94.8	60 - 140%	07/22/2013	12:55	LB66948
	Beryllium	537	504	106.5	80 - 120%	07/22/2013	12:55	LB66948
	Cadmium	1010	989	102.1	80 - 120%	07/22/2013	12:55	LB66948
	Copper	518	550	94.2	80 - 120%	07/22/2013	12:55	LB66948
	Lead	65.5	61	107.4	80 - 120%	07/22/2013	12:55	LB66948
	Manganese	516	507	101.8	80 - 120%	07/22/2013	12:55	LB66948
	Nickel	1020	983	103.8	80 - 120%	07/22/2013	12:55	LB66948
	Selenium	54.6	51	107.1	34 - 166%	07/22/2013	12:55	LB66948
	Silver	199	205	97.1	80 - 120%	07/22/2013	12:55	LB66948
	Zinc	1040	986	105.5	80 - 120%	07/22/2013	12:55	LB66948

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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2873-15 **client id:** Z-1-S-5(6-8)S

Percent Solids for Sample: 81 **Spiked ID:** E2873-15S **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	48.4966		3.8828		48.65	91.7		P
Barium	mg/Kg	39 - 158	87.8793		68.9318		12.16	155.8		P
Beryllium	mg/Kg	79 - 112	10.2141		0.0365	U	12.16	84.0		P
Cadmium	mg/Kg	73 - 114	13.6575		0.1138	J	12.16	111.4		P
Copper	mg/Kg	59 - 132	38.2874		15.1097		18.24	127.1		P
Lead	mg/Kg	66 - 125	81.3416		12.3763		60.82	113.4		P
Manganese	mg/Kg	10 - 205	536.9155		565.6056		12.16	-235.9		P
Nickel	mg/Kg	64 - 129	46.3948		10.2541		30.41	118.8		P
Selenium	mg/Kg	69 - 105	104.6038		0.2493	U	121.63	86.0		P
Silver	mg/Kg	54 - 131	3.1114		0.0912	U	4.56	68.2		P
Zinc	mg/Kg	67 - 127	48.0247		30.5096		12.16	144.0	N	P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2873-15 **client id:** Z-1-S-5(6-8)SD

Percent Solids for Sample: 81 **Spiked ID:** E2873-15SD **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	48.1143		3.8828		47.48	93.2		P
Barium	mg/Kg	39 - 158	88.4141		68.9318		11.87	164.1		P
Beryllium	mg/Kg	79 - 112	10.1561		0.0356	U	11.87	85.6		P
Cadmium	mg/Kg	73 - 114	13.5880		0.1138	J	11.87	113.5		P
Copper	mg/Kg	59 - 132	38.1962		15.1097		17.81	129.6		P
Lead	mg/Kg	66 - 125	80.7692		12.3763		59.35	115.2		P
Manganese	mg/Kg	10 - 205	515.0819		565.6056		11.87	-425.6		P
Nickel	mg/Kg	64 - 129	46.2132		10.2541		29.68	121.2		P
Selenium	mg/Kg	69 - 105	103.6859		0.2434	U	118.71	87.3		P
Silver	mg/Kg	54 - 131	3.0846		0.0890	U	4.45	69.3		P
Zinc	mg/Kg	67 - 127	47.3564		30.5096		11.87	141.9	N	P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2914-03 **client id:** TS-C-01S

Percent Solids for Sample: 88.2 **Spiked ID:** E2914-03S **Percent Solids for Spike Sample:** 88.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.2075		0.0023	U	0.23	90.2		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2914-03 **client id:** TS-C-01SD

Percent Solids for Sample: 88.2 **Spiked ID:** E2914-03SD **Percent Solids for Spike Sample:** 88.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.2034		0.0023	U	0.23	88.4		CV

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2932-18 **client id:** Z-2-B-5(8-9)S

Percent Solids for Sample: 88 **Spiked ID:** E2932-19S **Percent Solids for Spike Sample:** 88

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.2115		0.0101	J	0.23	87.6		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2932-18 **client id:** Z-2-B-5(8-9)SD

Percent Solids for Sample: 88 **Spiked ID:** E2932-20SD **Percent Solids for Spike Sample:** 88

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.2121		0.0101	J	0.23	87.8		CV

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2873-15 **Client ID:** Z-1-S-5(6-8)D

Percent Solids for Sample: 81 **Duplicate ID** E2873-15D **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	3.8828		4.0941		5.3		P
Barium	mg/Kg	20	68.9318		70.5497		2.3		P
Beryllium	mg/Kg	20	0.0307	U	0.0307	U			P
Cadmium	mg/Kg	20	0.1138	J	0.1352	J	17.2		P
Copper	mg/Kg	20	15.1097		15.5796		3.1		P
Lead	mg/Kg	20	12.3763		12.7996		3.4		P
Manganese	mg/Kg	20	565.6056		577.0196		2.0		P
Nickel	mg/Kg	20	10.2541		10.5077		2.4		P
Selenium	mg/Kg	20	0.2100	U	0.2100	U			P
Silver	mg/Kg	20	0.0768	U	0.0768	U			P
Zinc	mg/Kg	20	30.5096		31.3621		2.8		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2873-15 **Client ID:** Z-1-S-5(6-8)SD

Percent Solids for Sample: 81 **Duplicate ID** E2873-15SD **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	48.4966		48.1143		0.8		P
Barium	mg/Kg	20	87.8793		88.4141		0.6		P
Beryllium	mg/Kg	20	10.2141		10.1561		0.6		P
Cadmium	mg/Kg	20	13.6575		13.5880		0.5		P
Copper	mg/Kg	20	38.2874		38.1962		0.2		P
Lead	mg/Kg	20	81.3416		80.7692		0.7		P
Manganese	mg/Kg	20	536.9154		515.0819		4.2		P
Nickel	mg/Kg	20	46.3948		46.2132		0.4		P
Selenium	mg/Kg	20	104.6038		103.6859		0.9		P
Silver	mg/Kg	20	3.1114		3.0846		0.9		P
Zinc	mg/Kg	20	48.0247		47.3564		1.4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2914-03 **Client ID:** TS-C-01D

Percent Solids for Sample: 88.2 **Duplicate ID** E2914-03D **Percent Solids for Spike Sample:** 88.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.0023	U	0.0023	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2914-03 **Client ID:** TS-C-01SD

Percent Solids for Sample: 88.2 **Duplicate ID** E2914-03SD **Percent Solids for Spike Sample:** 88.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.2075		0.2034		2.0		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2932-18 **Client ID:** Z-2-B-5(8-9)D

Percent Solids for Sample: 88 **Duplicate ID** E2932-18D **Percent Solids for Spike Sample:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.0101	J	0.0093	J	8.2		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2932-18 **Client ID:** Z-2-B-5(8-9)SD

Percent Solids for Sample: 88 **Duplicate ID** E2932-20SD **Percent Solids for Spike Sample:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.2115		0.2121		0.3		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB70964BS							
Arsenic	mg/Kg	40.0	37.9		94.8	82 - 112	P
Barium	mg/Kg	10.0	8.9		89.0	83 - 118	P
Beryllium	mg/Kg	10.0	9.4		94.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.4		94.0	82 - 117	P
Copper	mg/Kg	15.0	14.4		96.0	80 - 115	P
Lead	mg/Kg	50.0	46.7		93.4	82 - 117	P
Manganese	mg/Kg	10.0	9.4		94.0	84 - 114	P
Nickel	mg/Kg	25.0	23.7		94.8	85 - 118	P
Selenium	mg/Kg	100.0	94.0		94.0	74 - 110	P
Silver	mg/Kg	3.8	3.2		85.3	81 - 123	P
Zinc	mg/Kg	10.0	9.5		95.0	88 - 127	P

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71007BS							
Mercury	mg/Kg	0.2	0.166		83.0	73 - 121	CV

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71103BS							
Mercury	mg/Kg	0.200	0.170		85.0	80 - 120	CV

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71114BS							
Arsenic	mg/Kg	40.0	38.8		97.0	82 - 112	P
Barium	mg/Kg	10.0	10.4		104.0	83 - 118	P
Beryllium	mg/Kg	10.0	9.6		96.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.1		91.0	82 - 117	P
Copper	mg/Kg	15.0	15.0		100.0	80 - 115	P
Lead	mg/Kg	50.0	47.3		94.6	82 - 117	P
Manganese	mg/Kg	10.0	10.0		100.0	84 - 114	P
Nickel	mg/Kg	25.0	23.6		94.4	85 - 118	P
Selenium	mg/Kg	100.0	97.4		97.4	74 - 110	P
Silver	mg/Kg	3.8	3.8		101.3	81 - 123	P
Zinc	mg/Kg	10.0	9.9		99.0	88 - 127	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

Z-1-S-5(6-8)L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E2914 **SAS No.:** E2914 **SDG No.:** E2914

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	38.06		51.00		34.0	✓	P
Barium	675.60		716.70		6.1		P
Beryllium	0.35	U	1.75	U			P
Cadmium	1.12	J	1.25	U	100.0	✓	P
Copper	148.09		175.53		18.5		P
Lead	121.30		118.18		2.6		P
Manganese	5543.50		6601.50		19.1		P
Nickel	100.50		94.33		6.1		P
Selenium	2.40	U	12.00	U			P
Silver	0.75	U	3.75	U			P
Zinc	299.03		346.05		15.7	✓	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TS-C-01L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E2914 **SAS No.:** E2914 **SDG No.:** E2914

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.09	U	0.46	U			CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

Z-2-B-5(8-9)L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E2914 **SAS No.:** E2914 **SDG No.:** E2914

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.18	J	0.46	U	100.0		CV

Revised QC for chromium
follows.

JBB

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	993.75	999.0	99.5	90 - 110	P	07/15/2013	14:26	LB66836A
	Barium	520.18	503.0	103.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Beryllium	496.79	495.0	100.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Cadmium	503.11	496.0	101.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Chromium	501.97	490.0	102.4	90 - 110	P	07/15/2013	14:26	LB66836A
	Copper	522.95	492.0	106.3	90 - 110	P	07/15/2013	14:26	LB66836A
	Lead	1031.90	1002.0	103.0	90 - 110	P	07/15/2013	14:26	LB66836A
	Manganese	502.39	499.0	100.7	90 - 110	P	07/15/2013	14:26	LB66836A
	Nickel	510.40	503.0	101.5	90 - 110	P	07/15/2013	14:26	LB66836A
	Selenium	1022.30	1003.0	101.9	90 - 110	P	07/15/2013	14:26	LB66836A
	Silver	468.93	501.0	93.6	90 - 110	P	07/15/2013	14:26	LB66836A
	Zinc	1003.40	1025.0	97.9	90 - 110	P	07/15/2013	14:26	LB66836A
LLICV01	Arsenic	16.79	20.0	84.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Barium	102.22	100.0	102.2	70 - 130	P	07/15/2013	14:37	LB66836A
	Beryllium	5.99	6.0	99.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Cadmium	6.26	6.0	104.3	70 - 130	P	07/15/2013	14:37	LB66836A
	Chromium	9.74	10.0	97.4	70 - 130	P	07/15/2013	14:37	LB66836A
	Copper	20.60	20.0	103.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Lead	12.08	12.0	100.7	70 - 130	P	07/15/2013	14:37	LB66836A
	Manganese	20.00	20.0	100.0	70 - 130	P	07/15/2013	14:37	LB66836A
	Nickel	39.11	40.0	97.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Selenium	21.35	20.0	106.8	70 - 130	P	07/15/2013	14:37	LB66836A
	Silver	8.75	10.0	87.5	70 - 130	P	07/15/2013	14:37	LB66836A
	Zinc	39.51	40.0	98.8	70 - 130	P	07/15/2013	14:37	LB66836A
LLCCV01	Arsenic	17.54	20.0	87.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Barium	97.05	100.0	97.0	70 - 130	P	07/15/2013	15:04	LB66836A
	Beryllium	5.91	6.0	98.5	70 - 130	P	07/15/2013	15:04	LB66836A
	Cadmium	5.69	6.0	94.8	70 - 130	P	07/15/2013	15:04	LB66836A
	Chromium	9.78	10.0	97.8	70 - 130	P	07/15/2013	15:04	LB66836A
	Copper	20.32	20.0	101.6	70 - 130	P	07/15/2013	15:04	LB66836A
	Lead	11.11	12.0	92.6	70 - 130	P	07/15/2013	15:04	LB66836A
	Manganese	19.51	20.0	97.6	70 - 130	P	07/15/2013	15:04	LB66836A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Nickel	39.48	40.0	98.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Selenium	18.14	20.0	90.7	70 - 130	P	07/15/2013	15:04	LB66836A
	Silver	8.68	10.0	86.8	70 - 130	P	07/15/2013	15:04	LB66836A
	Zinc	38.68	40.0	96.7	70 - 130	P	07/15/2013	15:04	LB66836A
CCV01	Arsenic	4960.70	5000.0	99.2	90 - 110	P	07/15/2013	15:08	LB66836A
	Barium	9892.20	10000.0	98.9	90 - 110	P	07/15/2013	15:08	LB66836A
	Beryllium	247.06	250.0	98.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Cadmium	2467.50	2500.0	98.7	90 - 110	P	07/15/2013	15:08	LB66836A
	Chromium	989.01	1000.0	98.9	90 - 110	P	07/15/2013	15:08	LB66836A
	Copper	1237.70	1250.0	99.0	90 - 110	P	07/15/2013	15:08	LB66836A
	Lead	4929.40	5000.0	98.6	90 - 110	P	07/15/2013	15:08	LB66836A
	Manganese	2467.80	2500.0	98.7	90 - 110	P	07/15/2013	15:08	LB66836A
	Nickel	2471.10	2500.0	98.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Selenium	4989.20	5000.0	99.8	90 - 110	P	07/15/2013	15:08	LB66836A
	Silver	1227.10	1250.0	98.2	90 - 110	P	07/15/2013	15:08	LB66836A
	Zinc	2650.90	2500.0	106.0	90 - 110	P	07/15/2013	15:08	LB66836A
LLCCV02	Arsenic	15.24	20.0	76.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Barium	94.03	100.0	94.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Beryllium	6.01	6.0	100.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Cadmium	5.66	6.0	94.3	70 - 130	P	07/15/2013	15:49	LB66836A
	Chromium	9.71	10.0	97.1	70 - 130	P	07/15/2013	15:49	LB66836A
	Copper	20.95	20.0	104.8	70 - 130	P	07/15/2013	15:49	LB66836A
	Lead	11.40	12.0	95.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Manganese	22.65	20.0	113.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Nickel	38.52	40.0	96.3	70 - 130	P	07/15/2013	15:49	LB66836A
	Selenium	18.84	20.0	94.2	70 - 130	P	07/15/2013	15:49	LB66836A
	Silver	8.40	10.0	84.0	70 - 130	P	07/15/2013	15:49	LB66836A
	Zinc	38.64	40.0	96.6	70 - 130	P	07/15/2013	15:49	LB66836A
CCV02	Arsenic	4892.20	5000.0	97.8	90 - 110	P	07/15/2013	15:52	LB66836A
	Barium	9800.70	10000.0	98.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Beryllium	243.83	250.0	97.5	90 - 110	P	07/15/2013	15:52	LB66836A
	Cadmium	2418.10	2500.0	96.7	90 - 110	P	07/15/2013	15:52	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Chromium	968.35	1000.0	96.8	90 - 110	P	07/15/2013	15:52	LB66836A
	Copper	1212.00	1250.0	97.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Lead	4819.00	5000.0	96.4	90 - 110	P	07/15/2013	15:52	LB66836A
	Manganese	2409.30	2500.0	96.4	90 - 110	P	07/15/2013	15:52	LB66836A
	Nickel	2424.60	2500.0	97.0	90 - 110	P	07/15/2013	15:52	LB66836A
	Selenium	4912.10	5000.0	98.2	90 - 110	P	07/15/2013	15:52	LB66836A
	Silver	1209.40	1250.0	96.8	90 - 110	P	07/15/2013	15:52	LB66836A
	Zinc	2608.70	2500.0	104.3	90 - 110	P	07/15/2013	15:52	LB66836A
CCV03	Arsenic	4938.00	5000.0	98.8	90 - 110	P	07/15/2013	16:33	LB66836A
	Barium	9877.30	10000.0	98.8	90 - 110	P	07/15/2013	16:33	LB66836A
	Beryllium	245.31	250.0	98.1	90 - 110	P	07/15/2013	16:33	LB66836A
	Cadmium	2443.50	2500.0	97.7	90 - 110	P	07/15/2013	16:33	LB66836A
	Chromium	976.27	1000.0	97.6	90 - 110	P	07/15/2013	16:33	LB66836A
	Copper	1223.60	1250.0	97.9	90 - 110	P	07/15/2013	16:33	LB66836A
	Lead	4860.90	5000.0	97.2	90 - 110	P	07/15/2013	16:33	LB66836A
	Manganese	2438.20	2500.0	97.5	90 - 110	P	07/15/2013	16:33	LB66836A
	Nickel	2443.50	2500.0	97.7	90 - 110	P	07/15/2013	16:33	LB66836A
	Selenium	4955.20	5000.0	99.1	90 - 110	P	07/15/2013	16:33	LB66836A
	Silver	1216.40	1250.0	97.3	90 - 110	P	07/15/2013	16:33	LB66836A
	Zinc	2627.40	2500.0	105.1	90 - 110	P	07/15/2013	16:33	LB66836A
CCV04	Arsenic	4870.40	5000.0	97.4	90 - 110	P	07/15/2013	17:13	LB66836A
	Barium	9698.60	10000.0	97.0	90 - 110	P	07/15/2013	17:13	LB66836A
	Beryllium	241.73	250.0	96.7	90 - 110	P	07/15/2013	17:13	LB66836A
	Cadmium	2420.90	2500.0	96.8	90 - 110	P	07/15/2013	17:13	LB66836A
	Chromium	962.50	1000.0	96.2	90 - 110	P	07/15/2013	17:13	LB66836A
	Copper	1202.00	1250.0	96.2	90 - 110	P	07/15/2013	17:13	LB66836A
	Lead	4801.50	5000.0	96.0	90 - 110	P	07/15/2013	17:13	LB66836A
	Manganese	2391.00	2500.0	95.6	90 - 110	P	07/15/2013	17:13	LB66836A
	Nickel	2414.00	2500.0	96.6	90 - 110	P	07/15/2013	17:13	LB66836A
	Selenium	4889.50	5000.0	97.8	90 - 110	P	07/15/2013	17:13	LB66836A
	Silver	1200.60	1250.0	96.0	90 - 110	P	07/15/2013	17:13	LB66836A
	Zinc	2588.90	2500.0	103.6	90 - 110	P	07/15/2013	17:13	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Arsenic	4889.70	5000.0	97.8	90 - 110	P	07/15/2013	17:54	LB66836A
	Barium	9745.50	10000.0	97.5	90 - 110	P	07/15/2013	17:54	LB66836A
	Beryllium	241.28	250.0	96.5	90 - 110	P	07/15/2013	17:54	LB66836A
	Cadmium	2435.00	2500.0	97.4	90 - 110	P	07/15/2013	17:54	LB66836A
	Chromium	960.19	1000.0	96.0	90 - 110	P	07/15/2013	17:54	LB66836A
	Copper	1200.70	1250.0	96.1	90 - 110	P	07/15/2013	17:54	LB66836A
	Lead	4819.80	5000.0	96.4	90 - 110	P	07/15/2013	17:54	LB66836A
	Manganese	2382.70	2500.0	95.3	90 - 110	P	07/15/2013	17:54	LB66836A
	Nickel	2423.90	2500.0	97.0	90 - 110	P	07/15/2013	17:54	LB66836A
	Selenium	4915.10	5000.0	98.3	90 - 110	P	07/15/2013	17:54	LB66836A
	Silver	1200.80	1250.0	96.1	90 - 110	P	07/15/2013	17:54	LB66836A
	Zinc	2593.60	2500.0	103.7	90 - 110	P	07/15/2013	17:54	LB66836A
CCV06	Arsenic	4834.40	5000.0	96.7	90 - 110	P	07/15/2013	18:35	LB66836A
	Barium	9700.70	10000.0	97.0	90 - 110	P	07/15/2013	18:35	LB66836A
	Beryllium	241.76	250.0	96.7	90 - 110	P	07/15/2013	18:35	LB66836A
	Cadmium	2393.80	2500.0	95.8	90 - 110	P	07/15/2013	18:35	LB66836A
	Chromium	959.80	1000.0	96.0	90 - 110	P	07/15/2013	18:35	LB66836A
	Copper	1183.20	1250.0	94.7	90 - 110	P	07/15/2013	18:35	LB66836A
	Lead	4734.50	5000.0	94.7	90 - 110	P	07/15/2013	18:35	LB66836A
	Manganese	2369.50	2500.0	94.8	90 - 110	P	07/15/2013	18:35	LB66836A
	Nickel	2387.60	2500.0	95.5	90 - 110	P	07/15/2013	18:35	LB66836A
	Selenium	4850.90	5000.0	97.0	90 - 110	P	07/15/2013	18:35	LB66836A
	Silver	1198.80	1250.0	95.9	90 - 110	P	07/15/2013	18:35	LB66836A
	Zinc	2563.50	2500.0	102.5	90 - 110	P	07/15/2013	18:35	LB66836A
CCV07	Arsenic	4916.50	5000.0	98.3	90 - 110	P	07/15/2013	19:15	LB66836A
	Barium	9769.60	10000.0	97.7	90 - 110	P	07/15/2013	19:15	LB66836A
	Beryllium	243.75	250.0	97.5	90 - 110	P	07/15/2013	19:15	LB66836A
	Cadmium	2456.50	2500.0	98.3	90 - 110	P	07/15/2013	19:15	LB66836A
	Chromium	969.07	1000.0	96.9	90 - 110	P	07/15/2013	19:15	LB66836A
	Copper	1203.10	1250.0	96.2	90 - 110	P	07/15/2013	19:15	LB66836A
	Lead	4838.90	5000.0	96.8	90 - 110	P	07/15/2013	19:15	LB66836A
	Manganese	2387.80	2500.0	95.5	90 - 110	P	07/15/2013	19:15	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Nickel	2441.20	2500.0	97.6	90 - 110	P	07/15/2013	19:15	LB66836A
	Selenium	4947.20	5000.0	98.9	90 - 110	P	07/15/2013	19:15	LB66836A
	Silver	1206.70	1250.0	96.5	90 - 110	P	07/15/2013	19:15	LB66836A
	Zinc	2388.40	2500.0	95.5	90 - 110	P	07/15/2013	19:15	LB66836A
CCV08	Arsenic	4802.10	5000.0	96.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Barium	9495.10	10000.0	95.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Beryllium	237.52	250.0	95.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Cadmium	2389.40	2500.0	95.6	90 - 110	P	07/15/2013	19:56	LB66836A
	Chromium	946.17	1000.0	94.6	90 - 110	P	07/15/2013	19:56	LB66836A
	Copper	1170.70	1250.0	93.7	90 - 110	P	07/15/2013	19:56	LB66836A
	Lead	4705.70	5000.0	94.1	90 - 110	P	07/15/2013	19:56	LB66836A
	Manganese	2337.70	2500.0	93.5	90 - 110	P	07/15/2013	19:56	LB66836A
	Nickel	2375.60	2500.0	95.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Selenium	4819.10	5000.0	96.4	90 - 110	P	07/15/2013	19:56	LB66836A
	Silver	1175.00	1250.0	94.0	90 - 110	P	07/15/2013	19:56	LB66836A
	Zinc	2536.40	2500.0	101.5	90 - 110	P	07/15/2013	19:56	LB66836A
CCV09	Arsenic	4887.40	5000.0	97.7	90 - 110	P	07/15/2013	20:36	LB66836A
	Barium	9646.90	10000.0	96.5	90 - 110	P	07/15/2013	20:36	LB66836A
	Beryllium	242.37	250.0	96.9	90 - 110	P	07/15/2013	20:36	LB66836A
	Cadmium	2433.50	2500.0	97.3	90 - 110	P	07/15/2013	20:36	LB66836A
	Chromium	966.31	1000.0	96.6	90 - 110	P	07/15/2013	20:36	LB66836A
	Copper	1201.60	1250.0	96.1	90 - 110	P	07/15/2013	20:36	LB66836A
	Lead	4795.20	5000.0	95.9	90 - 110	P	07/15/2013	20:36	LB66836A
	Manganese	2386.00	2500.0	95.4	90 - 110	P	07/15/2013	20:36	LB66836A
	Nickel	2419.70	2500.0	96.8	90 - 110	P	07/15/2013	20:36	LB66836A
	Selenium	4904.30	5000.0	98.1	90 - 110	P	07/15/2013	20:36	LB66836A
	Silver	1199.80	1250.0	96.0	90 - 110	P	07/15/2013	20:36	LB66836A
	Zinc	2368.70	2500.0	94.7	90 - 110	P	07/15/2013	20:36	LB66836A
CCV10	Arsenic	4759.80	5000.0	95.2	90 - 110	P	07/15/2013	21:17	LB66836A
	Barium	9343.60	10000.0	93.4	90 - 110	P	07/15/2013	21:17	LB66836A
	Beryllium	237.11	250.0	94.8	90 - 110	P	07/15/2013	21:17	LB66836A
	Cadmium	2368.90	2500.0	94.8	90 - 110	P	07/15/2013	21:17	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Chromium	944.68	1000.0	94.5	90 - 110	P	07/15/2013	21:17	LB66836A
	Copper	1177.60	1250.0	94.2	90 - 110	P	07/15/2013	21:17	LB66836A
	Lead	4687.20	5000.0	93.7	90 - 110	P	07/15/2013	21:17	LB66836A
	Manganese	2348.90	2500.0	94.0	90 - 110	P	07/15/2013	21:17	LB66836A
	Nickel	2360.00	2500.0	94.4	90 - 110	P	07/15/2013	21:17	LB66836A
	Selenium	4782.40	5000.0	95.6	90 - 110	P	07/15/2013	21:17	LB66836A
	Silver	1169.00	1250.0	93.5	90 - 110	P	07/15/2013	21:17	LB66836A
	Zinc	2522.80	2500.0	100.9	90 - 110	P	07/15/2013	21:17	LB66836A
LLCCV03	Arsenic	17.26	20.0	86.3	70 - 130	P	07/15/2013	22:01	LB66836A
	Barium	77.02	100.0	77.0	70 - 130	P	07/15/2013	22:01	LB66836A
	Beryllium	5.81	6.0	96.8	70 - 130	P	07/15/2013	22:01	LB66836A
	Cadmium	5.59	6.0	93.2	70 - 130	P	07/15/2013	22:01	LB66836A
	Chromium	10.16	10.0	101.6	70 - 130	P	07/15/2013	22:01	LB66836A
	Copper	20.08	20.0	100.4	70 - 130	P	07/15/2013	22:01	LB66836A
	Lead	12.99	12.0	108.2	70 - 130	P	07/15/2013	22:01	LB66836A
	Manganese	20.84	20.0	104.2	70 - 130	P	07/15/2013	22:01	LB66836A
	Nickel	38.18	40.0	95.4	70 - 130	P	07/15/2013	22:01	LB66836A
	Selenium	19.10	20.0	95.5	70 - 130	P	07/15/2013	22:01	LB66836A
	Silver	7.81	10.0	78.1	70 - 130	P	07/15/2013	22:01	LB66836A
	Zinc	38.21	40.0	95.5	70 - 130	P	07/15/2013	22:01	LB66836A
CCV11	Arsenic	4741.50	5000.0	94.8	90 - 110	P	07/15/2013	22:04	LB66836A
	Barium	9127.50	10000.0	91.3	90 - 110	P	07/15/2013	22:04	LB66836A
	Beryllium	236.18	250.0	94.5	90 - 110	P	07/15/2013	22:04	LB66836A
	Cadmium	2352.70	2500.0	94.1	90 - 110	P	07/15/2013	22:04	LB66836A
	Chromium	937.49	1000.0	93.7	90 - 110	P	07/15/2013	22:04	LB66836A
	Copper	1174.80	1250.0	94.0	90 - 110	P	07/15/2013	22:04	LB66836A
	Lead	4659.90	5000.0	93.2	90 - 110	P	07/15/2013	22:04	LB66836A
	Manganese	2338.50	2500.0	93.5	90 - 110	P	07/15/2013	22:04	LB66836A
	Nickel	2346.70	2500.0	93.9	90 - 110	P	07/15/2013	22:04	LB66836A
	Selenium	4757.50	5000.0	95.2	90 - 110	P	07/15/2013	22:04	LB66836A
	Silver	1159.20	1250.0	92.7	90 - 110	P	07/15/2013	22:04	LB66836A
	Zinc	2509.60	2500.0	100.4	90 - 110	P	07/15/2013	22:04	LB66836A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Arsenic	18.83	20.0	94.2	70 - 130	P	07/15/2013	22:25	LB66836A
	Barium	76.31	100.0	76.3	70 - 130	P	07/15/2013	22:25	LB66836A
	Beryllium	5.94	6.0	99.0	70 - 130	P	07/15/2013	22:25	LB66836A
	Cadmium	5.60	6.0	93.3	70 - 130	P	07/15/2013	22:25	LB66836A
	Chromium	10.05	10.0	100.5	70 - 130	P	07/15/2013	22:25	LB66836A
	Copper	19.78	20.0	98.9	70 - 130	P	07/15/2013	22:25	LB66836A
	Lead	12.55	12.0	104.6	70 - 130	P	07/15/2013	22:25	LB66836A
	Manganese	20.22	20.0	101.1	70 - 130	P	07/15/2013	22:25	LB66836A
	Nickel	38.43	40.0	96.1	70 - 130	P	07/15/2013	22:25	LB66836A
	Selenium	22.75	20.0	113.8	70 - 130	P	07/15/2013	22:25	LB66836A
	Silver	7.58	10.0	75.8	70 - 130	P	07/15/2013	22:25	LB66836A
	Zinc	37.90	40.0	94.8	70 - 130	P	07/15/2013	22:25	LB66836A
CCV12	Arsenic	4750.00	5000.0	95.0	90 - 110	P	07/15/2013	22:28	LB66836A
	Barium	8990.90	10000.0	89.9	90 - 110	P	07/15/2013	22:28	LB66836A
	Beryllium	236.80	250.0	94.7	90 - 110	P	07/15/2013	22:28	LB66836A
	Cadmium	2364.60	2500.0	94.6	90 - 110	P	07/15/2013	22:28	LB66836A
	Chromium	945.13	1000.0	94.5	90 - 110	P	07/15/2013	22:28	LB66836A
	Copper	1178.70	1250.0	94.3	90 - 110	P	07/15/2013	22:28	LB66836A
	Lead	4678.70	5000.0	93.6	90 - 110	P	07/15/2013	22:28	LB66836A
	Manganese	2354.00	2500.0	94.2	90 - 110	P	07/15/2013	22:28	LB66836A
	Nickel	2354.40	2500.0	94.2	90 - 110	P	07/15/2013	22:28	LB66836A
	Selenium	4773.50	5000.0	95.5	90 - 110	P	07/15/2013	22:28	LB66836A
	Silver	1163.10	1250.0	93.0	90 - 110	P	07/15/2013	22:28	LB66836A
	Zinc	2515.30	2500.0	100.6	90 - 110	P	07/15/2013	22:28	LB66836A
ICV01	Arsenic	989.71	999.0	99.1	90 - 110	P	07/22/2013	12:23	LB66948
	Barium	529.89	503.0	105.3	90 - 110	P	07/22/2013	12:23	LB66948
	Beryllium	491.19	495.0	99.2	90 - 110	P	07/22/2013	12:23	LB66948
	Cadmium	487.10	496.0	98.2	90 - 110	P	07/22/2013	12:23	LB66948
	Chromium	507.64	490.0	103.6	90 - 110	P	07/22/2013	12:23	LB66948
	Copper	528.72	492.0	107.5	90 - 110	P	07/22/2013	12:23	LB66948
	Lead	1019.40	1002.0	101.7	90 - 110	P	07/22/2013	12:23	LB66948
	Manganese	508.82	499.0	102.0	90 - 110	P	07/22/2013	12:23	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Nickel	502.70	503.0	99.9	90 - 110	P	07/22/2013	12:23	LB66948
	Selenium	1018.40	1003.0	101.5	90 - 110	P	07/22/2013	12:23	LB66948
	Silver	492.76	501.0	98.4	90 - 110	P	07/22/2013	12:23	LB66948
	Zinc	1021.90	1025.0	99.7	90 - 110	P	07/22/2013	12:23	LB66948
LLICV01	Arsenic	17.19	20.0	86.0	70 - 130	P	07/22/2013	12:31	LB66948
	Barium	100.63	100.0	100.6	70 - 130	P	07/22/2013	12:31	LB66948
	Beryllium	5.89	6.0	98.2	70 - 130	P	07/22/2013	12:31	LB66948
	Cadmium	6.03	6.0	100.5	70 - 130	P	07/22/2013	12:31	LB66948
	Chromium	10.13	10.0	101.3	70 - 130	P	07/22/2013	12:31	LB66948
	Copper	21.10	20.0	105.5	70 - 130	P	07/22/2013	12:31	LB66948
	Lead	13.48	12.0	112.3	70 - 130	P	07/22/2013	12:31	LB66948
	Manganese	19.63	20.0	98.2	70 - 130	P	07/22/2013	12:31	LB66948
	Nickel	37.41	40.0	93.5	70 - 130	P	07/22/2013	12:31	LB66948
	Selenium	22.18	20.0	110.9	70 - 130	P	07/22/2013	12:31	LB66948
	Silver	8.43	10.0	84.3	70 - 130	P	07/22/2013	12:31	LB66948
	Zinc	39.31	40.0	98.3	70 - 130	P	07/22/2013	12:31	LB66948
LLCCV01	Arsenic	15.92	20.0	79.6	70 - 130	P	07/22/2013	13:11	LB66948
	Barium	96.93	100.0	96.9	70 - 130	P	07/22/2013	13:11	LB66948
	Beryllium	5.86	6.0	97.7	70 - 130	P	07/22/2013	13:11	LB66948
	Cadmium	5.39	6.0	89.8	70 - 130	P	07/22/2013	13:11	LB66948
	Chromium	9.82	10.0	98.2	70 - 130	P	07/22/2013	13:11	LB66948
	Copper	20.96	20.0	104.8	70 - 130	P	07/22/2013	13:11	LB66948
	Lead	12.82	12.0	106.8	70 - 130	P	07/22/2013	13:11	LB66948
	Manganese	19.86	20.0	99.3	70 - 130	P	07/22/2013	13:11	LB66948
	Nickel	37.73	40.0	94.3	70 - 130	P	07/22/2013	13:11	LB66948
	Selenium	19.72	20.0	98.6	70 - 130	P	07/22/2013	13:11	LB66948
	Silver	9.53	10.0	95.3	70 - 130	P	07/22/2013	13:11	LB66948
	Zinc	39.52	40.0	98.8	70 - 130	P	07/22/2013	13:11	LB66948
CCV01	Arsenic	4844.80	5000.0	96.9	90 - 110	P	07/22/2013	13:19	LB66948
	Barium	9553.10	10000.0	95.5	90 - 110	P	07/22/2013	13:19	LB66948
	Beryllium	240.87	250.0	96.3	90 - 110	P	07/22/2013	13:19	LB66948
	Cadmium	2400.30	2500.0	96.0	90 - 110	P	07/22/2013	13:19	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Chromium	966.60	1000.0	96.7	90 - 110	P	07/22/2013	13:19	LB66948
	Copper	1214.60	1250.0	97.2	90 - 110	P	07/22/2013	13:19	LB66948
	Lead	4821.90	5000.0	96.4	90 - 110	P	07/22/2013	13:19	LB66948
	Manganese	2399.40	2500.0	96.0	90 - 110	P	07/22/2013	13:19	LB66948
	Nickel	2407.20	2500.0	96.3	90 - 110	P	07/22/2013	13:19	LB66948
	Selenium	4866.00	5000.0	97.3	90 - 110	P	07/22/2013	13:19	LB66948
	Silver	1201.30	1250.0	96.1	90 - 110	P	07/22/2013	13:19	LB66948
	Zinc	2427.20	2500.0	97.1	90 - 110	P	07/22/2013	13:19	LB66948
LCCV02	Arsenic	17.80	20.0	89.0	70 - 130	P	07/22/2013	14:22	LB66948
	Barium	93.91	100.0	93.9	70 - 130	P	07/22/2013	14:22	LB66948
	Beryllium	5.87	6.0	97.8	70 - 130	P	07/22/2013	14:22	LB66948
	Cadmium	5.22	6.0	87.0	70 - 130	P	07/22/2013	14:22	LB66948
	Chromium	9.40	10.0	94.0	70 - 130	P	07/22/2013	14:22	LB66948
	Copper	20.21	20.0	101.0	70 - 130	P	07/22/2013	14:22	LB66948
	Lead	11.91	12.0	99.2	70 - 130	P	07/22/2013	14:22	LB66948
	Manganese	19.20	20.0	96.0	70 - 130	P	07/22/2013	14:22	LB66948
	Nickel	36.67	40.0	91.7	70 - 130	P	07/22/2013	14:22	LB66948
	Selenium	21.38	20.0	106.9	70 - 130	P	07/22/2013	14:22	LB66948
	Silver	9.15	10.0	91.5	70 - 130	P	07/22/2013	14:22	LB66948
	Zinc	41.55	40.0	103.9	70 - 130	P	07/22/2013	14:22	LB66948
CCV02	Arsenic	4942.20	5000.0	98.8	90 - 110	P	07/22/2013	14:26	LB66948
	Barium	9685.30	10000.0	96.9	90 - 110	P	07/22/2013	14:26	LB66948
	Beryllium	247.34	250.0	98.9	90 - 110	P	07/22/2013	14:26	LB66948
	Cadmium	2449.50	2500.0	98.0	90 - 110	P	07/22/2013	14:26	LB66948
	Chromium	990.94	1000.0	99.1	90 - 110	P	07/22/2013	14:26	LB66948
	Copper	1239.70	1250.0	99.2	90 - 110	P	07/22/2013	14:26	LB66948
	Lead	4942.00	5000.0	98.8	90 - 110	P	07/22/2013	14:26	LB66948
	Manganese	2457.70	2500.0	98.3	90 - 110	P	07/22/2013	14:26	LB66948
	Nickel	2437.30	2500.0	97.5	90 - 110	P	07/22/2013	14:26	LB66948
	Selenium	4993.60	5000.0	99.9	90 - 110	P	07/22/2013	14:26	LB66948
	Silver	1241.50	1250.0	99.3	90 - 110	P	07/22/2013	14:26	LB66948
	Zinc	2485.60	2500.0	99.4	90 - 110	P	07/22/2013	14:26	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Arsenic	4932.10	5000.0	98.6	90 - 110	P	07/22/2013	15:17	LB66948
	Barium	9884.60	10000.0	98.8	90 - 110	P	07/22/2013	15:17	LB66948
	Beryllium	249.14	250.0	99.7	90 - 110	P	07/22/2013	15:17	LB66948
	Cadmium	2455.80	2500.0	98.2	90 - 110	P	07/22/2013	15:17	LB66948
	Chromium	994.81	1000.0	99.5	90 - 110	P	07/22/2013	15:17	LB66948
	Copper	1242.10	1250.0	99.4	90 - 110	P	07/22/2013	15:17	LB66948
	Lead	4963.60	5000.0	99.3	90 - 110	P	07/22/2013	15:17	LB66948
	Manganese	2468.00	2500.0	98.7	90 - 110	P	07/22/2013	15:17	LB66948
	Nickel	2440.00	2500.0	97.6	90 - 110	P	07/22/2013	15:17	LB66948
	Selenium	5001.10	5000.0	100.0	90 - 110	P	07/22/2013	15:17	LB66948
	Silver	1243.00	1250.0	99.4	90 - 110	P	07/22/2013	15:17	LB66948
	Zinc	2490.20	2500.0	99.6	90 - 110	P	07/22/2013	15:17	LB66948
LLCCV03	Arsenic	18.62	20.0	93.1	70 - 130	P	07/22/2013	15:21	LB66948
	Barium	95.86	100.0	95.9	70 - 130	P	07/22/2013	15:21	LB66948
	Beryllium	5.85	6.0	97.5	70 - 130	P	07/22/2013	15:21	LB66948
	Cadmium	6.37	6.0	106.2	70 - 130	P	07/22/2013	15:21	LB66948
	Chromium	10.19	10.0	101.9	70 - 130	P	07/22/2013	15:21	LB66948
	Copper	21.72	20.0	108.6	70 - 130	P	07/22/2013	15:21	LB66948
	Lead	14.84	12.0	123.7	70 - 130	P	07/22/2013	15:21	LB66948
	Manganese	20.39	20.0	102.0	70 - 130	P	07/22/2013	15:21	LB66948
	Nickel	39.50	40.0	98.8	70 - 130	P	07/22/2013	15:21	LB66948
	Selenium	22.56	20.0	112.8	70 - 130	P	07/22/2013	15:21	LB66948
	Silver	11.07	10.0	110.7	70 - 130	P	07/22/2013	15:21	LB66948
	Zinc	42.71	40.0	106.8	70 - 130	P	07/22/2013	15:21	LB66948
CCV04	Arsenic	4798.70	5000.0	96.0	90 - 110	P	07/22/2013	16:14	LB66948
	Barium	9441.90	10000.0	94.4	90 - 110	P	07/22/2013	16:14	LB66948
	Beryllium	240.09	250.0	96.0	90 - 110	P	07/22/2013	16:14	LB66948
	Cadmium	2381.50	2500.0	95.3	90 - 110	P	07/22/2013	16:14	LB66948
	Chromium	959.71	1000.0	96.0	90 - 110	P	07/22/2013	16:14	LB66948
	Copper	1200.70	1250.0	96.1	90 - 110	P	07/22/2013	16:14	LB66948
	Lead	4824.30	5000.0	96.5	90 - 110	P	07/22/2013	16:14	LB66948
	Manganese	2383.40	2500.0	95.3	90 - 110	P	07/22/2013	16:14	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Nickel	2370.10	2500.0	94.8	90 - 110	P	07/22/2013	16:14	LB66948
	Selenium	4850.80	5000.0	97.0	90 - 110	P	07/22/2013	16:14	LB66948
	Silver	1219.00	1250.0	97.5	90 - 110	P	07/22/2013	16:14	LB66948
	Zinc	2418.00	2500.0	96.7	90 - 110	P	07/22/2013	16:14	LB66948
LLCCV04	Arsenic	17.39	20.0	87.0	70 - 130	P	07/22/2013	16:17	LB66948
	Barium	97.50	100.0	97.5	70 - 130	P	07/22/2013	16:17	LB66948
	Beryllium	5.96	6.0	99.3	70 - 130	P	07/22/2013	16:17	LB66948
	Cadmium	6.77	6.0	112.8	70 - 130	P	07/22/2013	16:17	LB66948
	Chromium	9.12	10.0	91.2	70 - 130	P	07/22/2013	16:17	LB66948
	Copper	21.02	20.0	105.1	70 - 130	P	07/22/2013	16:17	LB66948
	Lead	14.67	12.0	122.2	70 - 130	P	07/22/2013	16:17	LB66948
	Manganese	21.14	20.0	105.7	70 - 130	P	07/22/2013	16:17	LB66948
	Nickel	39.26	40.0	98.2	70 - 130	P	07/22/2013	16:17	LB66948
	Selenium	25.66	20.0	128.3	70 - 130	P	07/22/2013	16:17	LB66948
	Silver	10.71	10.0	107.1	70 - 130	P	07/22/2013	16:17	LB66948
	Zinc	42.67	40.0	106.7	70 - 130	P	07/22/2013	16:17	LB66948
CCV05	Arsenic	4814.90	5000.0	96.3	90 - 110	P	07/22/2013	17:12	LB66948
	Barium	9591.50	10000.0	95.9	90 - 110	P	07/22/2013	17:12	LB66948
	Beryllium	242.97	250.0	97.2	90 - 110	P	07/22/2013	17:12	LB66948
	Cadmium	2398.80	2500.0	96.0	90 - 110	P	07/22/2013	17:12	LB66948
	Chromium	970.28	1000.0	97.0	90 - 110	P	07/22/2013	17:12	LB66948
	Copper	1209.90	1250.0	96.8	90 - 110	P	07/22/2013	17:12	LB66948
	Lead	4850.80	5000.0	97.0	90 - 110	P	07/22/2013	17:12	LB66948
	Manganese	2406.70	2500.0	96.3	90 - 110	P	07/22/2013	17:12	LB66948
	Nickel	2382.30	2500.0	95.3	90 - 110	P	07/22/2013	17:12	LB66948
	Selenium	4892.60	5000.0	97.9	90 - 110	P	07/22/2013	17:12	LB66948
	Silver	1225.10	1250.0	98.0	90 - 110	P	07/22/2013	17:12	LB66948
	Zinc	2432.00	2500.0	97.3	90 - 110	P	07/22/2013	17:12	LB66948
LLCCV05	Arsenic	17.38	20.0	86.9	70 - 130	P	07/22/2013	17:16	LB66948
	Barium	91.81	100.0	91.8	70 - 130	P	07/22/2013	17:16	LB66948
	Beryllium	5.85	6.0	97.5	70 - 130	P	07/22/2013	17:16	LB66948
	Cadmium	5.66	6.0	94.3	70 - 130	P	07/22/2013	17:16	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
			2x CRDL						
LLCCV05	Chromium	8.78	10.0	87.8	70 - 130	P	07/22/2013	17:16	LB66948
	Copper	20.86	20.0	104.3	70 - 130	P	07/22/2013	17:16	LB66948
	Lead	12.32	12.0	102.7	70 - 130	P	07/22/2013	17:16	LB66948
	Manganese	20.22	20.0	101.1	70 - 130	P	07/22/2013	17:16	LB66948
	Nickel	37.88	40.0	94.7	70 - 130	P	07/22/2013	17:16	LB66948
	Selenium	22.91	20.0	114.6	70 - 130	P	07/22/2013	17:16	LB66948
	Silver	8.43	10.0	84.3	70 - 130	P	07/22/2013	17:16	LB66948
	Zinc	40.17	40.0	100.4	70 - 130	P	07/22/2013	17:16	LB66948
CCV06	Arsenic	4970.20	5000.0	99.4	90 - 110	P	07/22/2013	18:47	LB66948
	Barium	9980.00	10000.0	99.8	90 - 110	P	07/22/2013	18:47	LB66948
	Beryllium	247.34	250.0	98.9	90 - 110	P	07/22/2013	18:47	LB66948
	Cadmium	2467.30	2500.0	98.7	90 - 110	P	07/22/2013	18:47	LB66948
	Chromium	982.91	1000.0	98.3	90 - 110	P	07/22/2013	18:47	LB66948
	Copper	1240.00	1250.0	99.2	90 - 110	P	07/22/2013	18:47	LB66948
	Lead	4982.00	5000.0	99.6	90 - 110	P	07/22/2013	18:47	LB66948
	Manganese	2443.50	2500.0	97.7	90 - 110	P	07/22/2013	18:47	LB66948
	Nickel	2460.50	2500.0	98.4	90 - 110	P	07/22/2013	18:47	LB66948
	Selenium	5031.80	5000.0	100.6	90 - 110	P	07/22/2013	18:47	LB66948
	Silver	1257.40	1250.0	100.6	90 - 110	P	07/22/2013	18:47	LB66948
	Zinc	2493.50	2500.0	99.7	90 - 110	P	07/22/2013	18:47	LB66948
CCV07	Arsenic	4932.40	5000.0	98.6	90 - 110	P	07/22/2013	19:33	LB66948
	Barium	10036.00	10000.0	100.4	90 - 110	P	07/22/2013	19:33	LB66948
	Beryllium	246.31	250.0	98.5	90 - 110	P	07/22/2013	19:33	LB66948
	Cadmium	2440.90	2500.0	97.6	90 - 110	P	07/22/2013	19:33	LB66948
	Chromium	977.66	1000.0	97.8	90 - 110	P	07/22/2013	19:33	LB66948
	Copper	1231.30	1250.0	98.5	90 - 110	P	07/22/2013	19:33	LB66948
	Lead	4935.00	5000.0	98.7	90 - 110	P	07/22/2013	19:33	LB66948
	Manganese	2435.90	2500.0	97.4	90 - 110	P	07/22/2013	19:33	LB66948
	Nickel	2442.90	2500.0	97.7	90 - 110	P	07/22/2013	19:33	LB66948
	Selenium	4988.50	5000.0	99.8	90 - 110	P	07/22/2013	19:33	LB66948
	Silver	1253.70	1250.0	100.3	90 - 110	P	07/22/2013	19:33	LB66948
	Zinc	2470.10	2500.0	98.8	90 - 110	P	07/22/2013	19:33	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Arsenic	17.99	20.0	90.0	70 - 130	P	07/22/2013	19:37	LB66948
	Barium	93.06	100.0	93.1	70 - 130	P	07/22/2013	19:37	LB66948
	Beryllium	5.82	6.0	97.0	70 - 130	P	07/22/2013	19:37	LB66948
	Cadmium	5.71	6.0	95.2	70 - 130	P	07/22/2013	19:37	LB66948
	Chromium	8.89	10.0	88.9	70 - 130	P	07/22/2013	19:37	LB66948
	Copper	21.38	20.0	106.9	70 - 130	P	07/22/2013	19:37	LB66948
	Lead	12.55	12.0	104.6	70 - 130	P	07/22/2013	19:37	LB66948
	Manganese	19.94	20.0	99.7	70 - 130	P	07/22/2013	19:37	LB66948
	Nickel	38.34	40.0	95.8	70 - 130	P	07/22/2013	19:37	LB66948
	Selenium	24.33	20.0	121.6	70 - 130	P	07/22/2013	19:37	LB66948
	Silver	9.21	10.0	92.1	70 - 130	P	07/22/2013	19:37	LB66948
	Zinc	40.25	40.0	100.6	70 - 130	P	07/22/2013	19:37	LB66948
CCV08	Arsenic	4928.10	5000.0	98.6	90 - 110	P	07/22/2013	20:24	LB66948
	Barium	10085.00	10000.0	100.8	90 - 110	P	07/22/2013	20:24	LB66948
	Beryllium	245.01	250.0	98.0	90 - 110	P	07/22/2013	20:24	LB66948
	Cadmium	2416.70	2500.0	96.7	90 - 110	P	07/22/2013	20:24	LB66948
	Chromium	970.63	1000.0	97.1	90 - 110	P	07/22/2013	20:24	LB66948
	Copper	1229.20	1250.0	98.3	90 - 110	P	07/22/2013	20:24	LB66948
	Lead	4873.80	5000.0	97.5	90 - 110	P	07/22/2013	20:24	LB66948
	Manganese	2441.50	2500.0	97.7	90 - 110	P	07/22/2013	20:24	LB66948
	Nickel	2424.20	2500.0	97.0	90 - 110	P	07/22/2013	20:24	LB66948
	Selenium	4982.50	5000.0	99.6	90 - 110	P	07/22/2013	20:24	LB66948
	Silver	1249.80	1250.0	100.0	90 - 110	P	07/22/2013	20:24	LB66948
	Zinc	2452.00	2500.0	98.1	90 - 110	P	07/22/2013	20:24	LB66948
LLCCV07	Arsenic	17.20	20.0	86.0	70 - 130	P	07/22/2013	20:27	LB66948
	Barium	92.45	100.0	92.4	70 - 130	P	07/22/2013	20:27	LB66948
	Beryllium	5.63	6.0	93.8	70 - 130	P	07/22/2013	20:27	LB66948
	Cadmium	5.21	6.0	86.8	70 - 130	P	07/22/2013	20:27	LB66948
	Chromium	8.49	10.0	84.9	70 - 130	P	07/22/2013	20:27	LB66948
	Copper	21.03	20.0	105.2	70 - 130	P	07/22/2013	20:27	LB66948
	Lead	11.28	12.0	94.0	70 - 130	P	07/22/2013	20:27	LB66948
	Manganese	19.35	20.0	96.8	70 - 130	P	07/22/2013	20:27	LB66948

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV07	Nickel	38.06	40.0	95.2	70 - 130	P	07/22/2013	20:27	LB66948
	Selenium	26.62	20.0	133.1	70 - 130	P	07/22/2013	20:27	LB66948
	Silver	10.67	10.0	106.7	70 - 130	P	07/22/2013	20:27	LB66948
	Zinc	39.30	40.0	98.2	70 - 130	P	07/22/2013	20:27	LB66948
CCV09	Arsenic	4930.90	5000.0	98.6	90 - 110	P	07/22/2013	21:15	LB66948
	Barium	10157.00	10000.0	101.6	90 - 110	P	07/22/2013	21:15	LB66948
	Beryllium	245.87	250.0	98.3	90 - 110	P	07/22/2013	21:15	LB66948
	Cadmium	2408.30	2500.0	96.3	90 - 110	P	07/22/2013	21:15	LB66948
	Chromium	971.08	1000.0	97.1	90 - 110	P	07/22/2013	21:15	LB66948
	Copper	1223.10	1250.0	97.8	90 - 110	P	07/22/2013	21:15	LB66948
	Lead	4859.80	5000.0	97.2	90 - 110	P	07/22/2013	21:15	LB66948
	Manganese	2442.60	2500.0	97.7	90 - 110	P	07/22/2013	21:15	LB66948
	Nickel	2424.90	2500.0	97.0	90 - 110	P	07/22/2013	21:15	LB66948
	Selenium	4962.60	5000.0	99.3	90 - 110	P	07/22/2013	21:15	LB66948
	Silver	1253.30	1250.0	100.3	90 - 110	P	07/22/2013	21:15	LB66948
	Zinc	2448.70	2500.0	97.9	90 - 110	P	07/22/2013	21:15	LB66948
ICV01	Arsenic	974.14	999.0	97.5	90 - 110	P	07/23/2013	11:33	LB66970A
	Barium	525.79	503.0	104.5	90 - 110	P	07/23/2013	11:33	LB66970A
	Beryllium	478.54	495.0	96.7	90 - 110	P	07/23/2013	11:33	LB66970A
	Cadmium	478.71	496.0	96.5	90 - 110	P	07/23/2013	11:33	LB66970A
	Chromium	492.41	490.0	100.5	90 - 110	P	07/23/2013	11:33	LB66970A
	Copper	518.43	492.0	105.4	90 - 110	P	07/23/2013	11:33	LB66970A
	Lead	1002.10	1002.0	100.0	90 - 110	P	07/23/2013	11:33	LB66970A
	Manganese	496.10	499.0	99.4	90 - 110	P	07/23/2013	11:33	LB66970A
	Nickel	492.78	503.0	98.0	90 - 110	P	07/23/2013	11:33	LB66970A
	Selenium	1003.80	1003.0	100.1	90 - 110	P	07/23/2013	11:33	LB66970A
	Silver	484.13	501.0	96.6	90 - 110	P	07/23/2013	11:33	LB66970A
	Zinc	1000.40	1025.0	97.6	90 - 110	P	07/23/2013	11:33	LB66970A
LLICV01	Arsenic	16.22	20.0	81.1	70 - 130	P	07/23/2013	11:56	LB66970A
	Barium	100.86	100.0	100.9	70 - 130	P	07/23/2013	11:56	LB66970A
	Beryllium	5.83	6.0	97.2	70 - 130	P	07/23/2013	11:56	LB66970A
	Cadmium	5.37	6.0	89.5	70 - 130	P	07/23/2013	11:56	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Chromium	8.56	10.0	85.6	70 - 130	P	07/23/2013	11:56	LB66970A
	Copper	20.73	20.0	103.6	70 - 130	P	07/23/2013	11:56	LB66970A
	Lead	11.71	12.0	97.6	70 - 130	P	07/23/2013	11:56	LB66970A
	Manganese	20.08	20.0	100.4	70 - 130	P	07/23/2013	11:56	LB66970A
	Nickel	36.60	40.0	91.5	70 - 130	P	07/23/2013	11:56	LB66970A
	Selenium	22.84	20.0	114.2	70 - 130	P	07/23/2013	11:56	LB66970A
	Silver	12.36	10.0	123.6	70 - 130	P	07/23/2013	11:56	LB66970A
	Zinc	38.47	40.0	96.2	70 - 130	P	07/23/2013	11:56	LB66970A
LCCV01	Arsenic	16.81	20.0	84.0	70 - 130	P	07/23/2013	12:27	LB66970A
	Barium	100.95	100.0	101.0	70 - 130	P	07/23/2013	12:27	LB66970A
	Beryllium	5.69	6.0	94.8	70 - 130	P	07/23/2013	12:27	LB66970A
	Cadmium	5.32	6.0	88.7	70 - 130	P	07/23/2013	12:27	LB66970A
	Chromium	9.21	10.0	92.1	70 - 130	P	07/23/2013	12:27	LB66970A
	Copper	20.14	20.0	100.7	70 - 130	P	07/23/2013	12:27	LB66970A
	Lead	11.89	12.0	99.1	70 - 130	P	07/23/2013	12:27	LB66970A
	Manganese	19.79	20.0	99.0	70 - 130	P	07/23/2013	12:27	LB66970A
	Nickel	36.88	40.0	92.2	70 - 130	P	07/23/2013	12:27	LB66970A
	Selenium	23.64	20.0	118.2	70 - 130	P	07/23/2013	12:27	LB66970A
	Silver	12.20	10.0	122.0	70 - 130	P	07/23/2013	12:27	LB66970A
	Zinc	37.73	40.0	94.3	70 - 130	P	07/23/2013	12:27	LB66970A
CCV01	Arsenic	4963.30	5000.0	99.3	90 - 110	P	07/23/2013	12:31	LB66970A
	Barium	10451.00	10000.0	104.5	90 - 110	P	07/23/2013	12:31	LB66970A
	Beryllium	251.31	250.0	100.5	90 - 110	P	07/23/2013	12:31	LB66970A
	Cadmium	2443.40	2500.0	97.7	90 - 110	P	07/23/2013	12:31	LB66970A
	Chromium	1035.00	1000.0	103.5	90 - 110	P	07/23/2013	12:31	LB66970A
	Copper	1238.60	1250.0	99.1	90 - 110	P	07/23/2013	12:31	LB66970A
	Lead	4937.30	5000.0	98.7	90 - 110	P	07/23/2013	12:31	LB66970A
	Manganese	2538.10	2500.0	101.5	90 - 110	P	07/23/2013	12:31	LB66970A
	Nickel	2477.00	2500.0	99.1	90 - 110	P	07/23/2013	12:31	LB66970A
	Selenium	4993.60	5000.0	99.9	90 - 110	P	07/23/2013	12:31	LB66970A
	Silver	1286.60	1250.0	102.9	90 - 110	P	07/23/2013	12:31	LB66970A
	Zinc	2470.50	2500.0	98.8	90 - 110	P	07/23/2013	12:31	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Arsenic	4932.20	5000.0	98.6	90 - 110	P	07/23/2013	13:22	LB66970A
	Barium	10408.00	10000.0	104.1	90 - 110	P	07/23/2013	13:22	LB66970A
	Beryllium	251.00	250.0	100.4	90 - 110	P	07/23/2013	13:22	LB66970A
	Cadmium	2412.80	2500.0	96.5	90 - 110	P	07/23/2013	13:22	LB66970A
	Chromium	1023.90	1000.0	102.4	90 - 110	P	07/23/2013	13:22	LB66970A
	Copper	1226.80	1250.0	98.1	90 - 110	P	07/23/2013	13:22	LB66970A
	Lead	4889.20	5000.0	97.8	90 - 110	P	07/23/2013	13:22	LB66970A
	Manganese	2518.20	2500.0	100.7	90 - 110	P	07/23/2013	13:22	LB66970A
	Nickel	2438.40	2500.0	97.5	90 - 110	P	07/23/2013	13:22	LB66970A
	Selenium	4983.30	5000.0	99.7	90 - 110	P	07/23/2013	13:22	LB66970A
	Silver	1283.80	1250.0	102.7	90 - 110	P	07/23/2013	13:22	LB66970A
	Zinc	2440.60	2500.0	97.6	90 - 110	P	07/23/2013	13:22	LB66970A
LLCCV02	Arsenic	18.71	20.0	93.6	70 - 130	P	07/23/2013	13:26	LB66970A
	Barium	100.93	100.0	100.9	70 - 130	P	07/23/2013	13:26	LB66970A
	Beryllium	5.94	6.0	99.0	70 - 130	P	07/23/2013	13:26	LB66970A
	Cadmium	5.68	6.0	94.7	70 - 130	P	07/23/2013	13:26	LB66970A
	Chromium	9.71	10.0	97.1	70 - 130	P	07/23/2013	13:26	LB66970A
	Copper	20.61	20.0	103.0	70 - 130	P	07/23/2013	13:26	LB66970A
	Lead	13.65	12.0	113.8	70 - 130	P	07/23/2013	13:26	LB66970A
	Manganese	21.25	20.0	106.2	70 - 130	P	07/23/2013	13:26	LB66970A
	Nickel	36.89	40.0	92.2	70 - 130	P	07/23/2013	13:26	LB66970A
	Selenium	24.69	20.0	123.4	70 - 130	P	07/23/2013	13:26	LB66970A
	Silver	11.71	10.0	117.1	70 - 130	P	07/23/2013	13:26	LB66970A
	Zinc	39.83	40.0	99.6	70 - 130	P	07/23/2013	13:26	LB66970A
CCV03	Arsenic	4899.00	5000.0	98.0	90 - 110	P	07/23/2013	14:12	LB66970A
	Barium	10469.00	10000.0	104.7	90 - 110	P	07/23/2013	14:12	LB66970A
	Beryllium	250.69	250.0	100.3	90 - 110	P	07/23/2013	14:12	LB66970A
	Cadmium	2407.30	2500.0	96.3	90 - 110	P	07/23/2013	14:12	LB66970A
	Chromium	1009.40	1000.0	100.9	90 - 110	P	07/23/2013	14:12	LB66970A
	Copper	1225.10	1250.0	98.0	90 - 110	P	07/23/2013	14:12	LB66970A
	Lead	4878.70	5000.0	97.6	90 - 110	P	07/23/2013	14:12	LB66970A
	Manganese	2503.40	2500.0	100.1	90 - 110	P	07/23/2013	14:12	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Nickel	2420.50	2500.0	96.8	90 - 110	P	07/23/2013	14:12	LB66970A
	Selenium	4978.20	5000.0	99.6	90 - 110	P	07/23/2013	14:12	LB66970A
	Silver	1288.20	1250.0	103.1	90 - 110	P	07/23/2013	14:12	LB66970A
	Zinc	2424.80	2500.0	97.0	90 - 110	P	07/23/2013	14:12	LB66970A
LLCCV03	Arsenic	16.34	20.0	81.7	70 - 130	P	07/23/2013	14:24	LB66970A
	Barium	98.38	100.0	98.4	70 - 130	P	07/23/2013	14:24	LB66970A
	Beryllium	5.88	6.0	98.0	70 - 130	P	07/23/2013	14:24	LB66970A
	Cadmium	5.33	6.0	88.8	70 - 130	P	07/23/2013	14:24	LB66970A
	Chromium	9.59	10.0	95.9	70 - 130	P	07/23/2013	14:24	LB66970A
	Copper	20.33	20.0	101.6	70 - 130	P	07/23/2013	14:24	LB66970A
	Lead	10.90	12.0	90.8	70 - 130	P	07/23/2013	14:24	LB66970A
	Manganese	19.86	20.0	99.3	70 - 130	P	07/23/2013	14:24	LB66970A
	Nickel	36.82	40.0	92.0	70 - 130	P	07/23/2013	14:24	LB66970A
	Selenium	24.38	20.0	121.9	70 - 130	P	07/23/2013	14:24	LB66970A
	Silver	12.27	10.0	122.7	70 - 130	P	07/23/2013	14:24	LB66970A
	Zinc	38.03	40.0	95.1	70 - 130	P	07/23/2013	14:24	LB66970A
CCV04	Arsenic	4896.30	5000.0	97.9	90 - 110	P	07/23/2013	15:15	LB66970A
	Barium	10437.00	10000.0	104.4	90 - 110	P	07/23/2013	15:15	LB66970A
	Beryllium	252.11	250.0	100.8	90 - 110	P	07/23/2013	15:15	LB66970A
	Cadmium	2412.00	2500.0	96.5	90 - 110	P	07/23/2013	15:15	LB66970A
	Chromium	1019.90	1000.0	102.0	90 - 110	P	07/23/2013	15:15	LB66970A
	Copper	1224.90	1250.0	98.0	90 - 110	P	07/23/2013	15:15	LB66970A
	Lead	4879.30	5000.0	97.6	90 - 110	P	07/23/2013	15:15	LB66970A
	Manganese	2514.80	2500.0	100.6	90 - 110	P	07/23/2013	15:15	LB66970A
	Nickel	2417.20	2500.0	96.7	90 - 110	P	07/23/2013	15:15	LB66970A
	Selenium	4994.80	5000.0	99.9	90 - 110	P	07/23/2013	15:15	LB66970A
	Silver	1298.20	1250.0	103.9	90 - 110	P	07/23/2013	15:15	LB66970A
	Zinc	2417.20	2500.0	96.7	90 - 110	P	07/23/2013	15:15	LB66970A
LLCCV04	Arsenic	17.81	20.0	89.0	70 - 130	P	07/23/2013	15:19	LB66970A
	Barium	98.46	100.0	98.5	70 - 130	P	07/23/2013	15:19	LB66970A
	Beryllium	5.84	6.0	97.3	70 - 130	P	07/23/2013	15:19	LB66970A
	Cadmium	5.39	6.0	89.8	70 - 130	P	07/23/2013	15:19	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Chromium	9.38	10.0	93.8	70 - 130	P	07/23/2013	15:19	LB66970A
	Copper	19.56	20.0	97.8	70 - 130	P	07/23/2013	15:19	LB66970A
	Lead	12.18	12.0	101.5	70 - 130	P	07/23/2013	15:19	LB66970A
	Manganese	19.96	20.0	99.8	70 - 130	P	07/23/2013	15:19	LB66970A
	Nickel	36.50	40.0	91.2	70 - 130	P	07/23/2013	15:19	LB66970A
	Selenium	26.62	20.0	133.1	70 - 130	P	07/23/2013	15:19	LB66970A
	Silver	12.00	10.0	120.0	70 - 130	P	07/23/2013	15:19	LB66970A
	Zinc	37.85	40.0	94.6	70 - 130	P	07/23/2013	15:19	LB66970A
CCV05	Arsenic	4818.30	5000.0	96.4	90 - 110	P	07/23/2013	16:38	LB66970A
	Barium	10174.00	10000.0	101.7	90 - 110	P	07/23/2013	16:38	LB66970A
	Beryllium	248.35	250.0	99.3	90 - 110	P	07/23/2013	16:38	LB66970A
	Cadmium	2376.00	2500.0	95.0	90 - 110	P	07/23/2013	16:38	LB66970A
	Chromium	991.62	1000.0	99.2	90 - 110	P	07/23/2013	16:38	LB66970A
	Copper	1212.20	1250.0	97.0	90 - 110	P	07/23/2013	16:38	LB66970A
	Lead	4806.70	5000.0	96.1	90 - 110	P	07/23/2013	16:38	LB66970A
	Manganese	2458.80	2500.0	98.4	90 - 110	P	07/23/2013	16:38	LB66970A
	Nickel	2368.70	2500.0	94.7	90 - 110	P	07/23/2013	16:38	LB66970A
	Selenium	4931.60	5000.0	98.6	90 - 110	P	07/23/2013	16:38	LB66970A
	Silver	1285.20	1250.0	102.8	90 - 110	P	07/23/2013	16:38	LB66970A
	Zinc	2384.10	2500.0	95.4	90 - 110	P	07/23/2013	16:38	LB66970A
LLCCV05	Arsenic	16.80	20.0	84.0	70 - 130	P	07/23/2013	16:42	LB66970A
	Barium	93.34	100.0	93.3	70 - 130	P	07/23/2013	16:42	LB66970A
	Beryllium	5.78	6.0	96.3	70 - 130	P	07/23/2013	16:42	LB66970A
	Cadmium	5.36	6.0	89.3	70 - 130	P	07/23/2013	16:42	LB66970A
	Chromium	9.04	10.0	90.4	70 - 130	P	07/23/2013	16:42	LB66970A
	Copper	19.80	20.0	99.0	70 - 130	P	07/23/2013	16:42	LB66970A
	Lead	11.71	12.0	97.6	70 - 130	P	07/23/2013	16:42	LB66970A
	Manganese	19.43	20.0	97.2	70 - 130	P	07/23/2013	16:42	LB66970A
	Nickel	36.01	40.0	90.0	70 - 130	P	07/23/2013	16:42	LB66970A
	Selenium	28.42	20.0	142.1	70 - 130	P	07/23/2013	16:42	LB66970A
	Silver	11.53	10.0	115.3	70 - 130	P	07/23/2013	16:42	LB66970A
	Zinc	36.99	40.0	92.5	70 - 130	P	07/23/2013	16:42	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS0I **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Arsenic	4769.10	5000.0	95.4	90 - 110	P	07/23/2013	17:30	LB66970A
	Barium	10068.00	10000.0	100.7	90 - 110	P	07/23/2013	17:30	LB66970A
	Beryllium	244.56	250.0	97.8	90 - 110	P	07/23/2013	17:30	LB66970A
	Cadmium	2358.30	2500.0	94.3	90 - 110	P	07/23/2013	17:30	LB66970A
	Chromium	979.59	1000.0	98.0	90 - 110	P	07/23/2013	17:30	LB66970A
	Copper	1199.90	1250.0	96.0	90 - 110	P	07/23/2013	17:30	LB66970A
	Lead	4757.60	5000.0	95.2	90 - 110	P	07/23/2013	17:30	LB66970A
	Manganese	2430.00	2500.0	97.2	90 - 110	P	07/23/2013	17:30	LB66970A
	Nickel	2345.80	2500.0	93.8	90 - 110	P	07/23/2013	17:30	LB66970A
	Selenium	4882.10	5000.0	97.6	90 - 110	P	07/23/2013	17:30	LB66970A
	Silver	1273.10	1250.0	101.8	90 - 110	P	07/23/2013	17:30	LB66970A
	Zinc	2356.90	2500.0	94.3	90 - 110	P	07/23/2013	17:30	LB66970A
LLCCV06	Arsenic	15.55	20.0	77.8	70 - 130	P	07/23/2013	17:37	LB66970A
	Barium	97.17	100.0	97.2	70 - 130	P	07/23/2013	17:37	LB66970A
	Beryllium	6.13	6.0	102.2	70 - 130	P	07/23/2013	17:37	LB66970A
	Cadmium	5.47	6.0	91.2	70 - 130	P	07/23/2013	17:37	LB66970A
	Chromium	9.74	10.0	97.4	70 - 130	P	07/23/2013	17:37	LB66970A
	Copper	20.18	20.0	100.9	70 - 130	P	07/23/2013	17:37	LB66970A
	Lead	12.07	12.0	100.6	70 - 130	P	07/23/2013	17:37	LB66970A
	Manganese	20.40	20.0	102.0	70 - 130	P	07/23/2013	17:37	LB66970A
	Nickel	37.50	40.0	93.8	70 - 130	P	07/23/2013	17:37	LB66970A
	Selenium	25.94	20.0	129.7	70 - 130	P	07/23/2013	17:37	LB66970A
	Silver	11.05	10.0	110.5	70 - 130	P	07/23/2013	17:37	LB66970A
	Zinc	38.53	40.0	96.3	70 - 130	P	07/23/2013	17:37	LB66970A
CCV07	Arsenic	4722.80	5000.0	94.5	90 - 110	P	07/23/2013	18:24	LB66970A
	Barium	10050.00	10000.0	100.5	90 - 110	P	07/23/2013	18:24	LB66970A
	Beryllium	243.92	250.0	97.6	90 - 110	P	07/23/2013	18:24	LB66970A
	Cadmium	2344.50	2500.0	93.8	90 - 110	P	07/23/2013	18:24	LB66970A
	Chromium	976.04	1000.0	97.6	90 - 110	P	07/23/2013	18:24	LB66970A
	Copper	1192.90	1250.0	95.4	90 - 110	P	07/23/2013	18:24	LB66970A
	Lead	4726.20	5000.0	94.5	90 - 110	P	07/23/2013	18:24	LB66970A
	Manganese	2421.40	2500.0	96.9	90 - 110	P	07/23/2013	18:24	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Nickel	2324.40	2500.0	93.0	90 - 110	P	07/23/2013	18:24	LB66970A
	Selenium	4860.90	5000.0	97.2	90 - 110	P	07/23/2013	18:24	LB66970A
	Silver	1277.10	1250.0	102.2	90 - 110	P	07/23/2013	18:24	LB66970A
	Zinc	2340.10	2500.0	93.6	90 - 110	P	07/23/2013	18:24	LB66970A
LLCCV07	Arsenic	16.60	20.0	83.0	70 - 130	P	07/23/2013	18:38	LB66970A
	Barium	95.83	100.0	95.8	70 - 130	P	07/23/2013	18:38	LB66970A
	Beryllium	5.97	6.0	99.5	70 - 130	P	07/23/2013	18:38	LB66970A
	Cadmium	5.37	6.0	89.5	70 - 130	P	07/23/2013	18:38	LB66970A
	Chromium	9.18	10.0	91.8	70 - 130	P	07/23/2013	18:38	LB66970A
	Copper	19.39	20.0	97.0	70 - 130	P	07/23/2013	18:38	LB66970A
	Lead	11.85	12.0	98.8	70 - 130	P	07/23/2013	18:38	LB66970A
	Manganese	19.82	20.0	99.1	70 - 130	P	07/23/2013	18:38	LB66970A
	Nickel	36.25	40.0	90.6	70 - 130	P	07/23/2013	18:38	LB66970A
	Selenium	25.31	20.0	126.6	70 - 130	P	07/23/2013	18:38	LB66970A
	Silver	10.28	10.0	102.8	70 - 130	P	07/23/2013	18:38	LB66970A
	Zinc	37.37	40.0	93.4	70 - 130	P	07/23/2013	18:38	LB66970A
CCV08	Arsenic	4746.90	5000.0	94.9	90 - 110	P	07/23/2013	19:25	LB66970A
	Barium	10204.00	10000.0	102.0	90 - 110	P	07/23/2013	19:25	LB66970A
	Beryllium	245.35	250.0	98.1	90 - 110	P	07/23/2013	19:25	LB66970A
	Cadmium	2354.20	2500.0	94.2	90 - 110	P	07/23/2013	19:25	LB66970A
	Chromium	982.77	1000.0	98.3	90 - 110	P	07/23/2013	19:25	LB66970A
	Copper	1199.30	1250.0	95.9	90 - 110	P	07/23/2013	19:25	LB66970A
	Lead	4757.40	5000.0	95.1	90 - 110	P	07/23/2013	19:25	LB66970A
	Manganese	2434.80	2500.0	97.4	90 - 110	P	07/23/2013	19:25	LB66970A
	Nickel	2322.00	2500.0	92.9	90 - 110	P	07/23/2013	19:25	LB66970A
	Selenium	4880.00	5000.0	97.6	90 - 110	P	07/23/2013	19:25	LB66970A
	Silver	1288.50	1250.0	103.1	90 - 110	P	07/23/2013	19:25	LB66970A
	Zinc	2344.40	2500.0	93.8	90 - 110	P	07/23/2013	19:25	LB66970A
LLCCV08	Arsenic	17.47	20.0	87.4	70 - 130	P	07/23/2013	19:28	LB66970A
	Barium	101.24	100.0	101.2	70 - 130	P	07/23/2013	19:28	LB66970A
	Beryllium	6.04	6.0	100.7	70 - 130	P	07/23/2013	19:28	LB66970A
	Cadmium	6.04	6.0	100.7	70 - 130	P	07/23/2013	19:28	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV08	Chromium	9.56	10.0	95.6	70 - 130	P	07/23/2013	19:28	LB66970A
	Copper	19.78	20.0	98.9	70 - 130	P	07/23/2013	19:28	LB66970A
	Lead	13.73	12.0	114.4	70 - 130	P	07/23/2013	19:28	LB66970A
	Manganese	21.86	20.0	109.3	70 - 130	P	07/23/2013	19:28	LB66970A
	Nickel	36.78	40.0	92.0	70 - 130	P	07/23/2013	19:28	LB66970A
	Selenium	27.37	20.0	136.8	70 - 130	P	07/23/2013	19:28	LB66970A
	Silver	14.15	10.0	141.5	70 - 130	P	07/23/2013	19:28	LB66970A
	Zinc	38.18	40.0	95.4	70 - 130	P	07/23/2013	19:28	LB66970A
CCV09	Arsenic	4734.50	5000.0	94.7	90 - 110	P	07/23/2013	20:15	LB66970A
	Barium	10302.00	10000.0	103.0	90 - 110	P	07/23/2013	20:15	LB66970A
	Beryllium	244.06	250.0	97.6	90 - 110	P	07/23/2013	20:15	LB66970A
	Cadmium	2342.70	2500.0	93.7	90 - 110	P	07/23/2013	20:15	LB66970A
	Chromium	980.60	1000.0	98.1	90 - 110	P	07/23/2013	20:15	LB66970A
	Copper	1193.50	1250.0	95.5	90 - 110	P	07/23/2013	20:15	LB66970A
	Lead	4735.60	5000.0	94.7	90 - 110	P	07/23/2013	20:15	LB66970A
	Manganese	2424.80	2500.0	97.0	90 - 110	P	07/23/2013	20:15	LB66970A
	Nickel	2315.90	2500.0	92.6	90 - 110	P	07/23/2013	20:15	LB66970A
	Selenium	4860.00	5000.0	97.2	90 - 110	P	07/23/2013	20:15	LB66970A
	Silver	1274.50	1250.0	102.0	90 - 110	P	07/23/2013	20:15	LB66970A
	Zinc	2338.30	2500.0	93.5	90 - 110	P	07/23/2013	20:15	LB66970A
CCV10	Arsenic	4698.60	5000.0	94.0	90 - 110	P	07/23/2013	20:53	LB66970A
	Barium	10369.00	10000.0	103.7	90 - 110	P	07/23/2013	20:53	LB66970A
	Beryllium	242.34	250.0	96.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Cadmium	2323.20	2500.0	92.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Chromium	977.73	1000.0	97.8	90 - 110	P	07/23/2013	20:53	LB66970A
	Copper	1186.60	1250.0	94.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Lead	4696.90	5000.0	93.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Manganese	2422.80	2500.0	96.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Nickel	2302.50	2500.0	92.1	90 - 110	P	07/23/2013	20:53	LB66970A
	Selenium	4830.10	5000.0	96.6	90 - 110	P	07/23/2013	20:53	LB66970A
	Silver	1273.60	1250.0	101.9	90 - 110	P	07/23/2013	20:53	LB66970A
	Zinc	2323.60	2500.0	92.9	90 - 110	P	07/23/2013	20:53	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCVII	Arsenic	4720.90	5000.0	94.4	90 - 110	P	07/23/2013	21:39	LB66970A
	Barium	10382.00	10000.0	103.8	90 - 110	P	07/23/2013	21:39	LB66970A
	Beryllium	243.48	250.0	97.4	90 - 110	P	07/23/2013	21:39	LB66970A
	Cadmium	2331.30	2500.0	93.3	90 - 110	P	07/23/2013	21:39	LB66970A
	Chromium	973.86	1000.0	97.4	90 - 110	P	07/23/2013	21:39	LB66970A
	Copper	1193.80	1250.0	95.5	90 - 110	P	07/23/2013	21:39	LB66970A
	Lead	4705.30	5000.0	94.1	90 - 110	P	07/23/2013	21:39	LB66970A
	Manganese	2426.20	2500.0	97.0	90 - 110	P	07/23/2013	21:39	LB66970A
	Nickel	2305.20	2500.0	92.2	90 - 110	P	07/23/2013	21:39	LB66970A
	Selenium	4838.70	5000.0	96.8	90 - 110	P	07/23/2013	21:39	LB66970A
	Silver	1276.30	1250.0	102.1	90 - 110	P	07/23/2013	21:39	LB66970A
	Zinc	2339.00	2500.0	93.6	90 - 110	P	07/23/2013	21:39	LB66970A
LLCCV9	Arsenic	18.13	20.0	90.6	70 - 130	P	07/23/2013	21:43	LB66970A
	Barium	101.46	100.0	101.5	70 - 130	P	07/23/2013	21:43	LB66970A
	Beryllium	5.83	6.0	97.2	70 - 130	P	07/23/2013	21:43	LB66970A
	Cadmium	6.11	6.0	101.8	70 - 130	P	07/23/2013	21:43	LB66970A
	Chromium	9.16	10.0	91.6	70 - 130	P	07/23/2013	21:43	LB66970A
	Copper	19.81	20.0	99.0	70 - 130	P	07/23/2013	21:43	LB66970A
	Lead	14.54	12.0	121.2	70 - 130	P	07/23/2013	21:43	LB66970A
	Manganese	21.23	20.0	106.2	70 - 130	P	07/23/2013	21:43	LB66970A
	Nickel	36.32	40.0	90.8	70 - 130	P	07/23/2013	21:43	LB66970A
	Selenium	28.81	20.0	144.0	70 - 130	P	07/23/2013	21:43	LB66970A
	Silver	14.64	10.0	146.4	70 - 130	P	07/23/2013	21:43	LB66970A
	Zinc	38.32	40.0	95.8	70 - 130	P	07/23/2013	21:43	LB66970A
LLCCV10	Arsenic	16.05	20.0	80.2	70 - 130	P	07/23/2013	21:47	LB66970A
	Barium	97.63	100.0	97.6	70 - 130	P	07/23/2013	21:47	LB66970A
	Beryllium	5.89	6.0	98.2	70 - 130	P	07/23/2013	21:47	LB66970A
	Cadmium	5.23	6.0	87.2	70 - 130	P	07/23/2013	21:47	LB66970A
	Chromium	9.08	10.0	90.8	70 - 130	P	07/23/2013	21:47	LB66970A
	Copper	18.79	20.0	94.0	70 - 130	P	07/23/2013	21:47	LB66970A
	Lead	11.40	12.0	95.0	70 - 130	P	07/23/2013	21:47	LB66970A
	Manganese	19.67	20.0	98.4	70 - 130	P	07/23/2013	21:47	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS0I **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV10	Nickel	35.98	40.0	90.0	70 - 130	P	07/23/2013	21:47	LB66970A
	Selenium	28.50	20.0	142.5	70 - 130	P	07/23/2013	21:47	LB66970A
	Silver	12.55	10.0	125.5	70 - 130	P	07/23/2013	21:47	LB66970A
	Zinc	37.33	40.0	93.3	70 - 130	P	07/23/2013	21:47	LB66970A
LLCCV11	Arsenic	17.78	20.0	88.9	70 - 130	P	07/23/2013	22:18	LB66970A
	Barium	99.97	100.0	100.0	70 - 130	P	07/23/2013	22:18	LB66970A
	Beryllium	5.77	6.0	96.2	70 - 130	P	07/23/2013	22:18	LB66970A
	Cadmium	5.17	6.0	86.2	70 - 130	P	07/23/2013	22:18	LB66970A
	Chromium	9.36	10.0	93.6	70 - 130	P	07/23/2013	22:18	LB66970A
	Copper	19.18	20.0	95.9	70 - 130	P	07/23/2013	22:18	LB66970A
	Lead	12.40	12.0	103.3	70 - 130	P	07/23/2013	22:18	LB66970A
	Manganese	19.85	20.0	99.2	70 - 130	P	07/23/2013	22:18	LB66970A
	Nickel	35.17	40.0	87.9	70 - 130	P	07/23/2013	22:18	LB66970A
	Selenium	26.99	20.0	135.0	70 - 130	P	07/23/2013	22:18	LB66970A
	Silver	13.98	10.0	139.8	70 - 130	P	07/23/2013	22:18	LB66970A
	Zinc	38.33	40.0	95.8	70 - 130	P	07/23/2013	22:18	LB66970A
LLCCV12	Arsenic	19.06	20.0	95.3	70 - 130	P	07/23/2013	22:22	LB66970A
	Barium	102.06	100.0	102.1	70 - 130	P	07/23/2013	22:22	LB66970A
	Beryllium	6.08	6.0	101.3	70 - 130	P	07/23/2013	22:22	LB66970A
	Cadmium	5.21	6.0	86.8	70 - 130	P	07/23/2013	22:22	LB66970A
	Chromium	9.18	10.0	91.8	70 - 130	P	07/23/2013	22:22	LB66970A
	Copper	20.06	20.0	100.3	70 - 130	P	07/23/2013	22:22	LB66970A
	Lead	12.76	12.0	106.3	70 - 130	P	07/23/2013	22:22	LB66970A
	Manganese	20.52	20.0	102.6	70 - 130	P	07/23/2013	22:22	LB66970A
	Nickel	36.70	40.0	91.8	70 - 130	P	07/23/2013	22:22	LB66970A
	Selenium	26.96	20.0	134.8	70 - 130	P	07/23/2013	22:22	LB66970A
	Silver	12.79	10.0	127.9	70 - 130	P	07/23/2013	22:22	LB66970A
	Zinc	38.98	40.0	97.4	70 - 130	P	07/23/2013	22:22	LB66970A
CCV12	Arsenic	4714.10	5000.0	94.3	90 - 110	P	07/23/2013	22:26	LB66970A
	Barium	10677.00	10000.0	106.8	90 - 110	P	07/23/2013	22:26	LB66970A
	Beryllium	243.80	250.0	97.5	90 - 110	P	07/23/2013	22:26	LB66970A
	Cadmium	2319.60	2500.0	92.8	90 - 110	P	07/23/2013	22:26	LB66970A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Chromium	983.92	1000.0	98.4	90 - 110	P	07/23/2013	22:26	LB66970A
	Copper	1188.30	1250.0	95.1	90 - 110	P	07/23/2013	22:26	LB66970A
	Lead	4677.60	5000.0	93.6	90 - 110	P	07/23/2013	22:26	LB66970A
	Manganese	2440.50	2500.0	97.6	90 - 110	P	07/23/2013	22:26	LB66970A
	Nickel	2310.90	2500.0	92.4	90 - 110	P	07/23/2013	22:26	LB66970A
	Selenium	4815.20	5000.0	96.3	90 - 110	P	07/23/2013	22:26	LB66970A
	Silver	1285.30	1250.0	102.8	90 - 110	P	07/23/2013	22:26	LB66970A
	Zinc	2340.50	2500.0	93.6	90 - 110	P	07/23/2013	22:26	LB66970A

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: PLASMA-PURE

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	18.98	20.0	94.9	40 - 160	P	07/15/2013	14:44	LB66836A
	Barium	105.34	100.0	105.3	40 - 160	P	07/15/2013	14:44	LB66836A
	Beryllium	6.07	6.0	101.2	40 - 160	P	07/15/2013	14:44	LB66836A
	Cadmium	5.70	6.0	95.0	40 - 160	P	07/15/2013	14:44	LB66836A
	Chromium	10.14	10.0	101.4	40 - 160	P	07/15/2013	14:44	LB66836A
	Copper	19.95	20.0	99.8	40 - 160	P	07/15/2013	14:44	LB66836A
	Lead	12.22	12.0	101.8	0 - 200	P	07/15/2013	14:44	LB66836A
	Manganese	20.08	20.0	100.4	40 - 160	P	07/15/2013	14:44	LB66836A
	Nickel	39.76	40.0	99.4	40 - 160	P	07/15/2013	14:44	LB66836A
	Selenium	20.11	20.0	100.6	40 - 160	P	07/15/2013	14:44	LB66836A
	Silver	8.65	10.0	86.5	40 - 160	P	07/15/2013	14:44	LB66836A
	Zinc	39.49	40.0	98.7	40 - 160	P	07/15/2013	14:44	LB66836A
CRI01	Mercury	0.18	0.2	90.0	70 - 130	CV	07/17/2013	09:44	LB66857
CRI01	Mercury	0.17	0.2	85.0	70 - 130	CV	07/19/2013	11:28	LB66914
CRI01	Arsenic	16.91	20.0	84.6	40 - 160	P	07/22/2013	12:39	LB66948
	Barium	97.86	100.0	97.9	40 - 160	P	07/22/2013	12:39	LB66948
	Beryllium	5.74	6.0	95.7	40 - 160	P	07/22/2013	12:39	LB66948
	Cadmium	5.09	6.0	84.8	40 - 160	P	07/22/2013	12:39	LB66948
	Chromium	9.14	10.0	91.4	40 - 160	P	07/22/2013	12:39	LB66948
	Copper	20.46	20.0	102.3	40 - 160	P	07/22/2013	12:39	LB66948
	Lead	11.64	12.0	97.0	0 - 200	P	07/22/2013	12:39	LB66948
	Manganese	19.52	20.0	97.6	40 - 160	P	07/22/2013	12:39	LB66948
	Nickel	37.01	40.0	92.5	40 - 160	P	07/22/2013	12:39	LB66948
	Selenium	22.60	20.0	113.0	40 - 160	P	07/22/2013	12:39	LB66948
	Silver	7.07	10.0	70.7	40 - 160	P	07/22/2013	12:39	LB66948
	Zinc	40.03	40.0	100.1	40 - 160	P	07/22/2013	12:39	LB66948
CRI01	Arsenic	20.21	20.0	101.0	40 - 160	P	07/23/2013	12:04	LB66970A
	Barium	99.19	100.0	99.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Beryllium	5.98	6.0	99.7	40 - 160	P	07/23/2013	12:04	LB66970A
	Cadmium	5.47	6.0	91.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Chromium	9.13	10.0	91.3	40 - 160	P	07/23/2013	12:04	LB66970A
	Copper	21.28	20.0	106.4	40 - 160	P	07/23/2013	12:04	LB66970A
	Lead	11.46	12.0	95.5	0 - 200	P	07/23/2013	12:04	LB66970A
	Manganese	20.10	20.0	100.5	40 - 160	P	07/23/2013	12:04	LB66970A

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Initial Calibration Source: PLASMA-PURE

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Nickel	37.01	40.0	92.5	40 - 160	P	07/23/2013	12:04	LB66970A
	Selenium	22.85	20.0	114.2	40 - 160	P	07/23/2013	12:04	LB66970A
	Silver	9.87	10.0	98.7	40 - 160	P	07/23/2013	12:04	LB66970A
	Zinc	40.50	40.0	101.2	40 - 160	P	07/23/2013	12:04	LB66970A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	14:41	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	14:41	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	14:41	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	14:41	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	14:41	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	14:41	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	14:41	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	14:41	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	14:41	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	14:41	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	14:41	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	14:41	LB66836A
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	15:11	LB66836A
	Barium	4.3	+/-50.0	J	4.0	50.0	P	07/15/2013	15:11	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	15:11	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	15:11	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	15:11	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	15:11	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	15:11	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	15:11	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	15:11	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	15:11	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	15:11	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	15:11	LB66836A
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	15:55	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	15:55	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	15:55	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	15:55	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	15:55	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	15:55	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	15:55	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	15:55	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	15:55	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	15:55	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	15:55	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	15:55	LB66836A
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	16:36	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	16:36	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	16:36	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	16:36	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	16:36	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	16:36	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	16:36	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	16:36	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	16:36	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	16:36	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	16:36	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	16:36	LB66836A
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	17:17	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	17:17	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	17:17	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	17:17	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	17:17	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	17:17	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	17:17	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	17:17	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	17:17	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	17:17	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	17:17	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	17:17	LB66836A
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	17:57	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	17:57	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	17:57	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	17:57	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	17:57	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	17:57	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	17:57	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	17:57	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	17:57	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	17:57	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	17:57	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	17:57	LB66836A
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	18:38	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	18:38	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	18:38	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	18:38	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	18:38	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	18:38	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	18:38	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	18:38	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	18:38	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	18:38	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	18:38	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	18:38	LB66836A
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	19:19	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	19:19	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	19:19	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	19:19	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	19:19	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	19:19	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	19:19	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	19:19	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	19:19	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	19:19	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	19:19	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	19:19	LB66836A
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	19:59	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	19:59	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	19:59	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	19:59	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	19:59	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	19:59	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	19:59	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	19:59	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	19:59	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	19:59	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	19:59	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	19:59	LB66836A
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	20:40	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	20:40	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	20:40	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	20:40	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	20:40	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	20:40	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	20:40	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	20:40	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	20:40	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	20:40	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	20:40	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	20:40	LB66836A
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	21:20	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	21:20	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	21:20	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	21:20	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	21:20	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	21:20	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	21:20	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	21:20	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	21:20	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	21:20	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	21:20	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	21:20	LB66836A
CCB11	Arsenic	4.5	+/-10.0	J	4.2	10.0	P	07/15/2013	22:08	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	22:08	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	22:08	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	22:08	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	22:08	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	22:08	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	22:08	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	22:08	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	22:08	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	22:08	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	22:08	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	22:08	LB66836A
CCB12	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/15/2013	22:31	LB66836A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/15/2013	22:31	LB66836A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/15/2013	22:31	LB66836A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/15/2013	22:31	LB66836A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/15/2013	22:31	LB66836A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/15/2013	22:31	LB66836A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/15/2013	22:31	LB66836A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/15/2013	22:31	LB66836A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/15/2013	22:31	LB66836A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/15/2013	22:31	LB66836A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/15/2013	22:31	LB66836A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/15/2013	22:31	LB66836A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	09:38	LB66857
CCB01	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	09:42	LB66857
CCB02	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	10:08	LB66857
CCB03	Mercury	0.091	+/-0.200	U	0.091	0.200	CV	07/17/2013	10:33	LB66857
ICB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:19	LB66914
CCB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:23	LB66914
CCB02	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	11:56	LB66914
CCB03	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	12:25	LB66914
CCB04	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	12:50	LB66914
CCB05	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	13:16	LB66914
CCB06	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	13:41	LB66914
CCB07	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	07/19/2013	14:13	LB66914
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	12:35	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	12:35	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	12:35	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	12:35	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	12:35	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	12:35	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	12:35	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	12:35	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	12:35	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	12:35	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	12:35	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	12:35	LB66948
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	13:22	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	13:22	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	13:22	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	13:22	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	13:22	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	13:22	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	13:22	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	13:22	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	13:22	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	13:22	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	13:22	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	13:22	LB66948
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	14:33	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	14:33	LB66948

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	14:33	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	14:33	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	14:33	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	14:33	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	14:33	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	14:33	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	14:33	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	14:33	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	14:33	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	14:33	LB66948
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	15:25	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	15:25	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	15:25	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	15:25	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	15:25	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	15:25	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	15:25	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	15:25	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	15:25	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	15:25	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	15:25	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	15:25	LB66948
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	16:21	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	16:21	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	16:21	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	16:21	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	16:21	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	16:21	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	16:21	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	16:21	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	16:21	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	16:21	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	16:21	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	16:21	LB66948
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	17:20	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	17:20	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	17:20	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	17:20	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	17:20	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	17:20	LB66948

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	17:20	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	17:20	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	17:20	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	17:20	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	17:20	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	17:20	LB66948
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	18:51	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	18:51	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	18:51	LB66948
	Cadmium	1.2	+/-3.0	J	0.5	3.0	P	07/22/2013	18:51	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	18:51	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	18:51	LB66948
	Lead	3.1	+/-6.0	J	2.6	6.0	P	07/22/2013	18:51	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	18:51	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	18:51	LB66948
	Selenium	6.0	+/-10.0	J	4.8	10.0	P	07/22/2013	18:51	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	18:51	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	18:51	LB66948
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	19:41	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	19:41	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	19:41	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	19:41	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	19:41	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	19:41	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	19:41	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	19:41	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	19:41	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	19:41	LB66948
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	19:41	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	19:41	LB66948
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	20:31	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	20:31	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	20:31	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	20:31	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	20:31	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	20:31	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	20:31	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	20:31	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	20:31	LB66948
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/22/2013	20:31	LB66948

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/22/2013	20:31	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	20:31	LB66948
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/22/2013	21:19	LB66948
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/22/2013	21:19	LB66948
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/22/2013	21:19	LB66948
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/22/2013	21:19	LB66948
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/22/2013	21:19	LB66948
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/22/2013	21:19	LB66948
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/22/2013	21:19	LB66948
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/22/2013	21:19	LB66948
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/22/2013	21:19	LB66948
	Selenium	5.7	+/-10.0	J	4.8	10.0	P	07/22/2013	21:19	LB66948
	Silver	2.0	+/-5.0	J	1.5	5.0	P	07/22/2013	21:19	LB66948
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/22/2013	21:19	LB66948
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	12:00	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	12:00	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	12:00	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	12:00	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	12:00	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	12:00	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	12:00	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	12:00	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	12:00	LB66970A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/23/2013	12:00	LB66970A
	Silver	2.1	+/-5.0	J	1.5	5.0	P	07/23/2013	12:00	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	12:00	LB66970A
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	12:35	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	12:35	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	12:35	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	12:35	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	12:35	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	12:35	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	12:35	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	12:35	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	12:35	LB66970A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/23/2013	12:35	LB66970A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/23/2013	12:35	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	12:35	LB66970A
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	13:30	LB66970A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	13:30	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	13:30	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	13:30	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	13:30	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	13:30	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	13:30	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	13:30	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	13:30	LB66970A
	Selenium	5.1	+/-10.0	J	4.8	10.0	P	07/23/2013	13:30	LB66970A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/23/2013	13:30	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	13:30	LB66970A
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	14:32	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	14:32	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	14:32	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	14:32	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	14:32	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	14:32	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	14:32	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	14:32	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	14:32	LB66970A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	07/23/2013	14:32	LB66970A
	Silver	1.7	+/-5.0	J	1.5	5.0	P	07/23/2013	14:32	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	14:32	LB66970A
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	15:35	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	15:35	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	15:35	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	15:35	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	15:35	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	15:35	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	15:35	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	15:35	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	15:35	LB66970A
	Selenium	6.7	+/-10.0	J	4.8	10.0	P	07/23/2013	15:35	LB66970A
	Silver	2.0	+/-5.0	J	1.5	5.0	P	07/23/2013	15:35	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	15:35	LB66970A
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	16:46	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	16:46	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	16:46	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	16:46	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	16:46	LB66970A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	16:46	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	16:46	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	16:46	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	16:46	LB66970A
	Selenium	7.3	+/-10.0	J	4.8	10.0	P	07/23/2013	16:46	LB66970A
	Silver	2.2	+/-5.0	J	1.5	5.0	P	07/23/2013	16:46	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	16:46	LB66970A
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	17:41	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	17:41	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	17:41	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	17:41	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	17:41	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	17:41	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	17:41	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	17:41	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	17:41	LB66970A
	Selenium	7.1	+/-10.0	J	4.8	10.0	P	07/23/2013	17:41	LB66970A
	Silver	2.3	+/-5.0	J	1.5	5.0	P	07/23/2013	17:41	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	17:41	LB66970A
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	18:42	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	18:42	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	18:42	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	18:42	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	18:42	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	18:42	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	18:42	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	18:42	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	18:42	LB66970A
	Selenium	7.6	+/-10.0	J	4.8	10.0	P	07/23/2013	18:42	LB66970A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	07/23/2013	18:42	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	18:42	LB66970A
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	19:32	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	19:32	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	19:32	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	19:32	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	19:32	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	19:32	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	19:32	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	19:32	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	19:32	LB66970A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Selenium	7.3	+/-10.0	J	4.8	10.0	P	07/23/2013	19:32	LB66970A
	Silver	2.3	+/-5.0	J	1.5	5.0	P	07/23/2013	19:32	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	19:32	LB66970A
CCB09	Arsenic	4.3	+/-10.0	J	4.2	10.0	P	07/23/2013	20:18	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	20:18	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	20:18	LB66970A
	Cadmium	0.8	+/-3.0	J	0.5	3.0	P	07/23/2013	20:18	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	20:18	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	20:18	LB66970A
	Lead	3.4	+/-6.0	J	2.6	6.0	P	07/23/2013	20:18	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	20:18	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	20:18	LB66970A
	Selenium	8.6	+/-10.0	J	4.8	10.0	P	07/23/2013	20:18	LB66970A
	Silver	4.7	+/-5.0	J	1.5	5.0	P	07/23/2013	20:18	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	20:18	LB66970A
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	20:57	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	20:57	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	20:57	LB66970A
	Cadmium	1.0	+/-3.0	J	0.5	3.0	P	07/23/2013	20:57	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	20:57	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	20:57	LB66970A
	Lead	4.8	+/-6.0	J	2.6	6.0	P	07/23/2013	20:57	LB66970A
	Manganese	2.2	+/-10.0	J	1.7	10.0	P	07/23/2013	20:57	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	20:57	LB66970A
	Selenium	8.0	+/-10.0	J	4.8	10.0	P	07/23/2013	20:57	LB66970A
	Silver	4.2	+/-5.0	J	1.5	5.0	P	07/23/2013	20:57	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	20:57	LB66970A
CCB11	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	21:51	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	21:51	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	21:51	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	21:51	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	21:51	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	21:51	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	21:51	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	21:51	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	21:51	LB66970A
	Selenium	7.1	+/-10.0	J	4.8	10.0	P	07/23/2013	21:51	LB66970A
	Silver	2.2	+/-5.0	J	1.5	5.0	P	07/23/2013	21:51	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	21:51	LB66970A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB12	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	07/23/2013	22:30	LB66970A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	07/23/2013	22:30	LB66970A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	07/23/2013	22:30	LB66970A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	07/23/2013	22:30	LB66970A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	07/23/2013	22:30	LB66970A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	07/23/2013	22:30	LB66970A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	07/23/2013	22:30	LB66970A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	07/23/2013	22:30	LB66970A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	07/23/2013	22:30	LB66970A
	Selenium	10.0	+/-10.0	J	4.8	10.0	P	07/23/2013	22:30	LB66970A
	Silver	3.9	+/-5.0	J	1.5	5.0	P	07/23/2013	22:30	LB66970A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	07/23/2013	22:30	LB66970A

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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	MDL mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB70964BL		**SOIL**		**Batch Number:**		**PB70964**		**Prep Date:**	**07/15/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	07/15/2013	20:57	LB66836A
	Barium	0.200	<2.500	U	0.200	2.500	P	07/15/2013	20:57	LB66836A
	Beryllium	0.030	<0.150	U	0.030	0.150	P	07/15/2013	20:57	LB66836A
	Cadmium	0.030	<0.150	U	0.030	0.150	P	07/15/2013	20:57	LB66836A
	Chromium	0.065	<0.250	U	0.065	0.250	P	07/15/2013	20:57	LB66836A
	Copper	0.160	<0.500	U	0.160	0.500	P	07/15/2013	20:57	LB66836A
	Lead	0.060	<0.300	U	0.060	0.300	P	07/15/2013	20:57	LB66836A
	Manganese	0.095	<0.500	U	0.095	0.500	P	07/15/2013	20:57	LB66836A
	Nickel	0.230	<1.000	U	0.230	1.000	P	07/15/2013	20:57	LB66836A
	Selenium	0.205	<0.500	U	0.205	0.500	P	07/15/2013	20:57	LB66836A
	Silver	0.075	<0.250	U	0.075	0.250	P	07/15/2013	20:57	LB66836A
	Zinc	0.350	<1.000	U	0.350	1.000	P	07/15/2013	20:57	LB66836A
PB71007BL		**SOIL**		**Batch Number:**		**PB71007**		**Prep Date:**	**07/15/2013**	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	07/17/2013	09:51	LB66857
PB71103BL		**SOIL**		**Batch Number:**		**PB71103**		**Prep Date:**	**07/18/2013**	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	07/19/2013	12:33	LB66914
PB71114BL		**SOIL**		**Batch Number:**		**PB71114**		**Prep Date:**	**07/19/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	07/23/2013	13:34	LB66970A
	Barium	0.200	<2.500	U	0.200	2.500	P	07/23/2013	13:34	LB66970A
	Beryllium	0.030	<0.150	U	0.030	0.150	P	07/23/2013	13:34	LB66970A
	Cadmium	0.030	<0.150	U	0.030	0.150	P	07/23/2013	13:34	LB66970A
	Chromium	0.065	<0.250	U	0.065	0.250	P	07/23/2013	13:34	LB66970A
	Copper	0.160	<0.500	U	0.160	0.500	P	07/23/2013	13:34	LB66970A
	Lead	0.062	<0.300	J	0.060	0.300	P	07/23/2013	13:34	LB66970A
	Manganese	0.095	<0.500	U	0.095	0.500	P	07/23/2013	13:34	LB66970A
	Nickel	0.230	<1.000	U	0.230	1.000	P	07/23/2013	13:34	LB66970A
	Selenium	0.205	<0.500	U	0.205	0.500	P	07/23/2013	13:34	LB66970A
	Silver	0.075	<0.250	U	0.075	0.250	P	07/23/2013	13:34	LB66970A
	Zinc	0.350	<1.000	U	0.350	1.000	P	07/23/2013	13:34	LB66970A

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	-10.7				07/15/2013	14:47	LB66836A
	Barium	8.2	2	410.0	-9900 - 10100%	07/15/2013	14:47	LB66836A
	Beryllium	-2.5				07/15/2013	14:47	LB66836A
	Cadmium	-0.29				07/15/2013	14:47	LB66836A
	Chromium	44.0	43	102.3	77 - 123%	07/15/2013	14:47	LB66836A
	Copper	25.3	23	110.0	-9 - 209%	07/15/2013	14:47	LB66836A
	Lead	10.4	10	104.0	0 - 200%	07/15/2013	14:47	LB66836A
	Manganese	18.4	19	96.8	21 - 179%	07/15/2013	14:47	LB66836A
	Nickel	21.7	21	103.3	-90 - 290%	07/15/2013	14:47	LB66836A
	Selenium	-0.21				07/15/2013	14:47	LB66836A
	Silver	-2.1				07/15/2013	14:47	LB66836A
	Zinc	27.3	28	97.5	-114 - 314%	07/15/2013	14:47	LB66836A
ICSAB01	Arsenic	85.4	101	84.6	80 - 120%	07/15/2013	14:51	LB66836A
	Barium	543	517	105.0	60 - 140%	07/15/2013	14:51	LB66836A
	Beryllium	508	504	100.8	80 - 120%	07/15/2013	14:51	LB66836A
	Cadmium	987	989	99.8	80 - 120%	07/15/2013	14:51	LB66836A
	Chromium	536	519	103.3	80 - 120%	07/15/2013	14:51	LB66836A
	Copper	526	550	95.6	80 - 120%	07/15/2013	14:51	LB66836A
	Lead	63.8	61	104.6	80 - 120%	07/15/2013	14:51	LB66836A
	Manganese	506	507	99.8	80 - 120%	07/15/2013	14:51	LB66836A
	Nickel	1010	983	102.7	80 - 120%	07/15/2013	14:51	LB66836A
	Selenium	49.1	51	96.3	34 - 166%	07/15/2013	14:51	LB66836A
	Silver	200	205	97.6	80 - 120%	07/15/2013	14:51	LB66836A
	Zinc	1030	986	104.5	80 - 120%	07/15/2013	14:51	LB66836A
ICSA01	Arsenic	-14.7				07/22/2013	12:51	LB66948
	Barium	2.7	2	135.0	-9900 - 10100%	07/22/2013	12:51	LB66948
	Beryllium	5.2				07/22/2013	12:51	LB66948
	Cadmium	1.1				07/22/2013	12:51	LB66948
	Chromium	44.6	43	103.7	77 - 123%	07/22/2013	12:51	LB66948
	Copper	25.5	23	110.9	-9 - 209%	07/22/2013	12:51	LB66948
	Lead	11.1	10	111.0	0 - 200%	07/22/2013	12:51	LB66948
	Manganese	21.2	19	111.6	21 - 179%	07/22/2013	12:51	LB66948
	Nickel	24.9	21	118.6	-90 - 290%	07/22/2013	12:51	LB66948
	Selenium	7.0				07/22/2013	12:51	LB66948
	Silver	-8.1				07/22/2013	12:51	LB66948
	Zinc	32.4	28	115.7	-114 - 314%	07/22/2013	12:51	LB66948
ICSAB01	Arsenic	87.9	101	87.0	80 - 120%	07/22/2013	12:55	LB66948
	Barium	490	517	94.8	60 - 140%	07/22/2013	12:55	LB66948
	Beryllium	537	504	106.5	80 - 120%	07/22/2013	12:55	LB66948
	Cadmium	1010	989	102.1	80 - 120%	07/22/2013	12:55	LB66948
	Chromium	541	519	104.2	80 - 120%	07/22/2013	12:55	LB66948
	Copper	518	550	94.2	80 - 120%	07/22/2013	12:55	LB66948
	Lead	65.5	61	107.4	80 - 120%	07/22/2013	12:55	LB66948
	Manganese	516	507	101.8	80 - 120%	07/22/2013	12:55	LB66948

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSAB01	Nickel	1020	983	103.8	80 - 120%	07/22/2013	12:55	LB66948
	Selenium	54.6	51	107.1	34 - 166%	07/22/2013	12:55	LB66948
	Silver	199	205	97.1	80 - 120%	07/22/2013	12:55	LB66948
	Zinc	1040	986	105.5	80 - 120%	07/22/2013	12:55	LB66948
ICSA01	Arsenic	-9.7				07/23/2013	12:08	LB66970A
	Barium	3.6	2	180.0	-9900 - 10100%	07/23/2013	12:08	LB66970A
	Beryllium	5.2				07/23/2013	12:08	LB66970A
	Cadmium	4.0				07/23/2013	12:08	LB66970A
	Chromium	45.9	43	106.7	77 - 123%	07/23/2013	12:08	LB66970A
	Copper	23.5	23	102.2	-9 - 209%	07/23/2013	12:08	LB66970A
	Lead	8.5	10	85.0	0 - 200%	07/23/2013	12:08	LB66970A
	Manganese	21.5	19	113.2	21 - 179%	07/23/2013	12:08	LB66970A
	Nickel	24.6	21	117.1	-90 - 290%	07/23/2013	12:08	LB66970A
	Selenium	12.0				07/23/2013	12:08	LB66970A
	Silver	-8.0				07/23/2013	12:08	LB66970A
	Zinc	30.3	28	108.2	-114 - 314%	07/23/2013	12:08	LB66970A
ICSAB01	Arsenic	96.0	101	95.0	80 - 120%	07/23/2013	12:12	LB66970A
	Barium	526	517	101.7	60 - 140%	07/23/2013	12:12	LB66970A
	Beryllium	545	504	108.1	80 - 120%	07/23/2013	12:12	LB66970A
	Cadmium	1010	989	102.1	80 - 120%	07/23/2013	12:12	LB66970A
	Chromium	564	519	108.7	80 - 120%	07/23/2013	12:12	LB66970A
	Copper	514	550	93.5	80 - 120%	07/23/2013	12:12	LB66970A
	Lead	66.6	61	109.2	80 - 120%	07/23/2013	12:12	LB66970A
	Manganese	532	507	104.9	80 - 120%	07/23/2013	12:12	LB66970A
	Nickel	1030	983	104.8	80 - 120%	07/23/2013	12:12	LB66970A
	Selenium	61.3	51	120.2	34 - 166%	07/23/2013	12:12	LB66970A
	Silver	210	205	102.4	80 - 120%	07/23/2013	12:12	LB66970A
	Zinc	1050	986	106.5	80 - 120%	07/23/2013	12:12	LB66970A

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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2873-15 **client id:** Z-1-S-5(6-8)S

Percent Solids for Sample: 81 **Spiked ID:** E2873-15S **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	48.4966		3.8828		48.65	91.7		P
Barium	mg/Kg	39 - 158	87.8793		68.9318		12.16	155.8		P
Beryllium	mg/Kg	79 - 112	10.2141		0.0365	U	12.16	84.0		P
Cadmium	mg/Kg	73 - 114	13.6575		0.1138	J	12.16	111.4		P
Chromium	mg/Kg	68 - 122	31.8762		7.6416		24.33	99.6		P
Copper	mg/Kg	59 - 132	38.2874		15.1097		18.24	127.1		P
Lead	mg/Kg	66 - 125	81.3416		12.3763		60.82	113.4		P
Manganese	mg/Kg	10 - 205	536.9155		565.6056		12.16	-235.9		P
Nickel	mg/Kg	64 - 129	46.3948		10.2541		30.41	118.8		P
Selenium	mg/Kg	69 - 105	104.6038		0.2493	U	121.63	86.0		P
Silver	mg/Kg	54 - 131	3.1114		0.0912	U	4.56	68.2		P
Zinc	mg/Kg	67 - 127	48.0247		30.5096		12.16	144.0	N	P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2873-15 **client id:** Z-1-S-5(6-8)SD

Percent Solids for Sample: 81 **Spiked ID:** E2873-15SD **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	48.1143		3.8828		47.48	93.2		P
Barium	mg/Kg	39 - 158	88.4141		68.9318		11.87	164.1		P
Beryllium	mg/Kg	79 - 112	10.1561		0.0356	U	11.87	85.6		P
Cadmium	mg/Kg	73 - 114	13.5880		0.1138	J	11.87	113.5		P
Chromium	mg/Kg	68 - 122	31.6785		7.6416		23.74	101.3		P
Copper	mg/Kg	59 - 132	38.1962		15.1097		17.81	129.6		P
Lead	mg/Kg	66 - 125	80.7692		12.3763		59.35	115.2		P
Manganese	mg/Kg	10 - 205	515.0819		565.6056		11.87	-425.6		P
Nickel	mg/Kg	64 - 129	46.2132		10.2541		29.68	121.2		P
Selenium	mg/Kg	69 - 105	103.6859		0.2434	U	118.71	87.3		P
Silver	mg/Kg	54 - 131	3.0846		0.0890	U	4.45	69.3		P
Zinc	mg/Kg	67 - 127	47.3564		30.5096		11.87	141.9	N	P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2970-01 **client id:** TIS

Percent Solids for Sample: 95.1 **Spiked ID:** E2970-01S **Percent Solids for Spike Sample:** 95.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	38.0863		0.1701	U	41.24	92.4		P
Barium	mg/Kg	39 - 158	18.3702		7.9207		10.31	101.4		P
Beryllium	mg/Kg	79 - 112	9.7828		0.2933		10.31	92.0		P
Cadmium	mg/Kg	73 - 114	10.3482		0.3114		10.31	97.4		P
Chromium	mg/Kg	68 - 122	23.7784		4.1962		20.62	95.0		P
Copper	mg/Kg	59 - 132	18.6177		3.9091		15.46	95.1		P
Lead	mg/Kg	66 - 125	99.8691		48.2438		51.55	100.1		P
Manganese	mg/Kg	10 - 205	59.7977		47.6526		10.31	117.8		P
Nickel	mg/Kg	64 - 129	29.6654		3.7011		25.77	100.8		P
Selenium	mg/Kg	69 - 105	96.2094		2.8919		103.09	90.5		P
Silver	mg/Kg	54 - 131	2.4252		0.0773	U	3.87	62.7		P
Zinc	mg/Kg	67 - 127	28.3216		20.1062		10.31	79.7		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E2914

contract: VIAS01 **lab code:** CHEM **case no.:** E2914 **sas no.:** E2914

matrix: SOIL **sample id:** E2970-01 **client id:** T1SD

Percent Solids for Sample: 95.1 **Spiked ID:** E2970-01SD **Percent Solids for Spike Sample:** 95.1

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	37.7122		0.1676	U	40.64	92.8		P
Barium	mg/Kg	39 - 158	18.3092		7.9207		10.16	102.2		P
Beryllium	mg/Kg	79 - 112	9.9438		0.2933		10.16	95.0		P
Cadmium	mg/Kg	73 - 114	10.3146		0.3114		10.16	98.5		P
Chromium	mg/Kg	68 - 122	23.5928		4.1962		20.32	95.5		P
Copper	mg/Kg	59 - 132	19.3907		3.9091		15.24	101.6		P
Lead	mg/Kg	66 - 125	100.5400		48.2438		50.80	102.9		P
Manganese	mg/Kg	10 - 205	57.5037		47.6526		10.16	97.0		P
Nickel	mg/Kg	64 - 129	29.4412		3.7011		25.40	101.3		P
Selenium	mg/Kg	69 - 105	92.9609		2.8919		101.60	88.7		P
Silver	mg/Kg	54 - 131	1.8237		0.0762	U	3.81	47.9	N	P
Zinc	mg/Kg	67 - 127	28.2154		20.1062		10.16	79.8		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2873-15 **Client ID:** Z-1-S-5(6-8)D

Percent Solids for Sample: 81 **Duplicate ID** E2873-15D **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	3.8828		4.0941		5.3		P
Barium	mg/Kg	20	68.9318		70.5497		2.3		P
Beryllium	mg/Kg	20	0.0307	U	0.0307	U			P
Cadmium	mg/Kg	20	0.1138	J	0.1352	J	17.2		P
Chromium	mg/Kg	20	7.6416		7.8336		2.5		P
Copper	mg/Kg	20	15.1097		15.5796		3.1		P
Lead	mg/Kg	20	12.3763		12.7996		3.4		P
Manganese	mg/Kg	20	565.6056		577.0196		2.0		P
Nickel	mg/Kg	20	10.2541		10.5077		2.4		P
Selenium	mg/Kg	20	0.2100	U	0.2100	U			P
Silver	mg/Kg	20	0.0768	U	0.0768	U			P
Zinc	mg/Kg	20	30.5096		31.3621		2.8		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2873-15 **Client ID:** Z-1-S-5(6-8)SD

Percent Solids for Sample: 81 **Duplicate ID** E2873-15SD **Percent Solids for Spike Sample:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	48.4966		48.1143		0.8		P
Barium	mg/Kg	20	87.8793		88.4141		0.6		P
Beryllium	mg/Kg	20	10.2141		10.1561		0.6		P
Cadmium	mg/Kg	20	13.6575		13.5880		0.5		P
Chromium	mg/Kg	20	31.8762		31.6785		0.6		P
Copper	mg/Kg	20	38.2874		38.1962		0.2		P
Lead	mg/Kg	20	81.3416		80.7692		0.7		P
Manganese	mg/Kg	20	536.9154		515.0819		4.2		P
Nickel	mg/Kg	20	46.3948		46.2132		0.4		P
Selenium	mg/Kg	20	104.6038		103.6859		0.9		P
Silver	mg/Kg	20	3.1114		3.0846		0.9		P
Zinc	mg/Kg	20	48.0247		47.3564		1.4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2970-01 **Client ID:** T1D

Percent Solids for Sample: 95.1 **Duplicate ID** E2970-01D **Percent Solids for Spike Sample:** 95.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	0.1464	U	0.1464	U			P
Barium	mg/Kg	20	7.9207		7.6717		3.2		P
Beryllium	mg/Kg	20	0.2933		0.3101		5.6		P
Cadmium	mg/Kg	20	0.3114		0.3141		0.9		P
Chromium	mg/Kg	20	4.1962		4.1684		0.7		P
Copper	mg/Kg	20	3.9091		3.9146		0.1		P
Lead	mg/Kg	20	48.2438		47.9841		0.5		P
Manganese	mg/Kg	20	47.6526		46.7640		1.9		P
Nickel	mg/Kg	20	3.7011		3.6369		1.7		P
Selenium	mg/Kg	20	2.8919		2.8231		2.4		P
Silver	mg/Kg	20	0.0666	U	0.0666	U			P
Zinc	mg/Kg	20	20.1062		19.8184		1.4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Matrix: SOIL **Sample ID:** E2970-01 **Client ID:** T1SD

Percent Solids for Sample: 95.1 **Duplicate ID** E2970-01SD **Percent Solids for Spike Sample:** 95.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	38.0863		37.7122		1.0		P
Barium	mg/Kg	20	18.3702		18.3092		0.3		P
Beryllium	mg/Kg	20	9.7828		9.9438		1.6		P
Cadmium	mg/Kg	20	10.3482		10.3146		0.3		P
Chromium	mg/Kg	20	23.7784		23.5928		0.8		P
Copper	mg/Kg	20	18.6177		19.3907		4.1		P
Lead	mg/Kg	20	99.8691		100.5400		0.7		P
Manganese	mg/Kg	20	59.7977		57.5037		3.9		P
Nickel	mg/Kg	20	29.6654		29.4412		0.8		P
Selenium	mg/Kg	20	96.2094		92.9609		3.4		P
Silver	mg/Kg	20	2.4252		1.8237		28.3	*	P
Zinc	mg/Kg	20	28.3216		28.2154		0.4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB70964BS							
Arsenic	mg/Kg	40.0	37.9		94.8	82 - 112	P
Barium	mg/Kg	10.0	8.9		89.0	83 - 118	P
Beryllium	mg/Kg	10.0	9.4		94.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.4		94.0	82 - 117	P
Chromium	mg/Kg	20.0	18.8		94.0	84 - 115	P
Copper	mg/Kg	15.0	14.4		96.0	80 - 115	P
Lead	mg/Kg	50.0	46.7		93.4	82 - 117	P
Manganese	mg/Kg	10.0	9.4		94.0	84 - 114	P
Nickel	mg/Kg	25.0	23.7		94.8	85 - 118	P
Selenium	mg/Kg	100.0	94.0		94.0	74 - 110	P
Silver	mg/Kg	3.8	3.2		85.3	81 - 123	P
Zinc	mg/Kg	10.0	9.5		95.0	88 - 127	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E2914

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E2914 **SAS No.:** E2914

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71114BS							
Arsenic	mg/Kg	40.0	38.8		97.0	82 - 112	P
Barium	mg/Kg	10.0	10.4		104.0	83 - 118	P
Beryllium	mg/Kg	10.0	9.6		96.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.1		91.0	82 - 117	P
Chromium	mg/Kg	20.0	19.9		99.5	84 - 115	P
Copper	mg/Kg	15.0	15.0		100.0	80 - 115	P
Lead	mg/Kg	50.0	47.3		94.6	82 - 117	P
Manganese	mg/Kg	10.0	10.0		100.0	84 - 114	P
Nickel	mg/Kg	25.0	23.6		94.4	85 - 118	P
Selenium	mg/Kg	100.0	97.4		97.4	74 - 110	P
Silver	mg/Kg	3.8	3.8		101.3	81 - 123	P
Zinc	mg/Kg	10.0	9.9		99.0	88 - 127	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

Z-1-S-5(6-8)L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E2914 **SAS No.:** E2914 **SDG No.:** E2914

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	38.06		51.00		34.0		P
Barium	675.60		716.70		6.1		P
Beryllium	0.35	U	1.75	U			P
Cadmium	1.12	J	1.25	U	100.0		P
Chromium	74.90		86.25		15.2		P
Copper	148.09		175.53		18.5		P
Lead	121.30		118.18		2.6		P
Manganese	5543.50		6601.50		19.1		P
Nickel	100.50		94.33		6.1		P
Selenium	2.40	U	12.00	U			P
Silver	0.75	U	3.75	U			P
Zinc	299.03		346.05		15.7		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TIL

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E2914 **SAS No.:** E2914 **SDG No.:** E2914

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	2.10	U	10.50	U			P
Barium	87.76		78.13	J	11.0		P
Beryllium	3.25		8.40		158.5		P
Cadmium	3.45		3.63	J	5.2		P
Chromium	46.49		47.20		1.5		P
Copper	43.31		57.93		33.8		P
Lead	534.50		535.45		0.2		P
Manganese	527.95		560.98		6.3		P
Nickel	41.01		39.35	J	4.0		P
Selenium	32.04		12.00	U	100.0		P
Silver	0.75	U	3.75	U			P
Zinc	222.76		234.18		5.1		P

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TB-001	SDG No.:	E2914
Lab Sample ID:	E2914-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG046997.D	1		07/12/13	VG071213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	5	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	5	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	25	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	5	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	5	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	25	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	5	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	0.75	U	0.4	0.75	5	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	5	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.48	0.75	5	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	5	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	5	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	5	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	5	ug/L
1330-20-7	Total Xylenes	1.5	U	1.38	1.5	15	ug/L
103-65-1	n-propylbenzene	0.5	U	0.45	0.5	5	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.46	0.5	5	ug/L
98-06-6	tert-Butylbenzene	0.5	U	0.44	0.5	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.38	0.5	5	ug/L
135-98-8	sec-Butylbenzene	0.5	U	0.46	0.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	5	ug/L
104-51-8	n-Butylbenzene	0.5	U	0.41	0.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TB-001	SDG No.:	E2914
Lab Sample ID:	E2914-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qe Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG046997.D	1		07/12/13	VG071213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	47.7		61 - 141		95%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		69 - 133		104%	SPK: 50
2037-26-5	Toluene-d8	46.2		65 - 126		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.2		58 - 135		84%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	237260	4.38				
540-36-3	1,4-Difluorobenzene	445832	5.16				
3114-55-4	Chlorobenzene-d5	319807	9.91				
3855-82-1	1,4-Dichlorobenzene-d4	98340	13.68				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-D-01	SDG No.:	E2914
Lab Sample ID:	E2914-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	12.3
Sample Wt/Vol:	5.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT006067.D	1		07/16/13	VT071613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-64-1	Acetone	2.6	UQ	2.6	2.6	25.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.51	U	0.51	0.51	5.1	ug/Kg
75-09-2	Methylene Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
78-93-3	2-Butanone	7.7	U	3.2	7.7	25.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-66-3	Chloroform	0.51	U	0.51	0.51	5.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
71-43-2	Benzene	0.51	U	0.39	0.51	5.1	ug/Kg
107-06-2	1,2-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
79-01-6	Trichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-88-3	Toluene	0.51	U	0.51	0.51	5.1	ug/Kg
127-18-4	Tetrachloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-90-7	Chlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	0.51	5.1	ug/Kg
1330-20-7	Total Xylenes	1.51	U	1.25	1.51	15.4	ug/Kg
103-65-1	n-propylbenzene	0.51	U	0.37	0.51	5.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.51	U	0.46	0.51	5.1	ug/Kg
98-06-6	tert-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
135-98-8	sec-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.51	U	0.38	0.51	5.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.51	U	0.42	0.51	5.1	ug/Kg
104-51-8	n-Butylbenzene	0.51	U	0.47	0.51	5.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
123-91-1	1,4-Dioxane	100	U UJ	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-D-01	SDG No.:	E2914
Lab Sample ID:	E2914-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	12.3
Sample Wt/Vol:	5.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT006067.D	1		07/16/13	VT071613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	53.2		56 - 120		106%	SPK: 50
1868-53-7	Dibromofluoromethane	49.7		57 - 135		99%	SPK: 50
2037-26-5	Toluene-d8	48.1		67 - 123		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.8		33 - 141		88%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	622416	7.429				
540-36-3	1,4-Difluorobenzene	979464	8.378				
3114-55-4	Chlorobenzene-d5	831733	11.219				
3855-82-1	1,4-Dichlorobenzene-d4	371422	13.16				

U = Not Detected
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N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-01	SDG No.:	E2914
Lab Sample ID:	E2914-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	7
Sample Wt/Vol:	5.21 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT006068.D	1		07/16/13	VT071613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	UQ	2.6	2.6	25.8	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.7	U	3.2	7.7	25.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.39	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.26	1.52	15.5	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.37	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.46	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.38	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.42	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-01	SDG No.:	E2914
Lab Sample ID:	E2914-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	7
Sample Wt/Vol:	5.21 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT006068.D	1		07/16/13	VT071613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	56.1		56 - 120		112%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		57 - 135		99%	SPK: 50
2037-26-5	Toluene-d8	47.4		67 - 123		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		33 - 141		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	576136	7.43				
540-36-3	1,4-Difluorobenzene	944999	8.38				
3114-55-4	Chlorobenzene-d5	817193	11.22				
3855-82-1	1,4-Dichlorobenzene-d4	389570	13.16				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-02	SDG No.:	E2914
Lab Sample ID:	E2914-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6
Sample Wt/Vol:	5.69 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038402.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.47	U	0.47	0.47	4.7	ug/Kg
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
67-64-1	Acetone	2.3	UQ	2.3	2.3	23.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.47	U	0.47	0.47	4.7	ug/Kg
75-09-2	Methylene Chloride	0.47	U	0.47	0.47	4.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
75-34-3	1,1-Dichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
78-93-3	2-Butanone	7	U	2.9	7	23.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.47	U	0.47	0.47	4.7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
67-66-3	Chloroform	0.47	U	0.47	0.47	4.7	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
71-43-2	Benzene	0.47	U	0.36	0.47	4.7	ug/Kg
107-06-2	1,2-Dichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
79-01-6	Trichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
108-88-3	Toluene	0.47	U	0.47	0.47	4.7	ug/Kg
127-18-4	Tetrachloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
108-90-7	Chlorobenzene	0.47	U	0.47	0.47	4.7	ug/Kg
100-41-4	Ethyl Benzene	0.47	U	0.47	0.47	4.7	ug/Kg
1330-20-7	Total Xylenes	1.4	U	1.14	1.4	14	ug/Kg
103-65-1	n-propylbenzene	0.47	U	0.34	0.47	4.7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.47	U	0.42	0.47	4.7	ug/Kg
98-06-6	tert-Butylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
135-98-8	sec-Butylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.47	U	0.35	0.47	4.7	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.47	U	0.38	0.47	4.7	ug/Kg
104-51-8	n-Butylbenzene	0.47	U	0.43	0.47	4.7	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.47	U	0.47	0.47	4.7	ug/Kg
123-91-1	1,4-Dioxane	93.5	U	93.5	93.5	93.5	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-02	SDG No.:	E2914
Lab Sample ID:	E2914-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6
Sample Wt/Vol:	5.69 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038402.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	53.3		56 - 120		107%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	46.2		67 - 123		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		33 - 141		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	918860	4.685				
540-36-3	1,4-Difluorobenzene	1535940	5.404				
3114-55-4	Chlorobenzene-d5	1427340	9.537				
3855-82-1	1,4-Dichlorobenzene-d4	689765	12.446				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-03	SDG No.:	E2914
Lab Sample ID:	E2914-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.7
Sample Wt/Vol:	5.11 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038403.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-64-1	Acetone	2.6	UQ	2.6	2.6	25.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.51	U	0.51	0.51	5.1	ug/Kg
75-09-2	Methylene Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
78-93-3	2-Butanone	7.7	U	3.2	7.7	25.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-66-3	Chloroform	0.51	U	0.51	0.51	5.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
71-43-2	Benzene	0.51	U	0.39	0.51	5.1	ug/Kg
107-06-2	1,2-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
79-01-6	Trichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-88-3	Toluene	0.51	U	0.51	0.51	5.1	ug/Kg
127-18-4	Tetrachloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-90-7	Chlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	0.51	5.1	ug/Kg
1330-20-7	Total Xylenes	1.51	U	1.25	1.51	15.4	ug/Kg
103-65-1	n-propylbenzene	0.51	U	0.37	0.51	5.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.51	U	0.46	0.51	5.1	ug/Kg
98-06-6	tert-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
135-98-8	sec-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.51	U	0.38	0.51	5.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.51	U	0.42	0.51	5.1	ug/Kg
104-51-8	n-Butylbenzene	0.51	U	0.47	0.51	5.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-03	SDG No.:	E2914
Lab Sample ID:	E2914-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.7
Sample Wt/Vol:	5.11 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038403.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	43.7		56 - 120		87%	SPK: 50
1868-53-7	Dibromofluoromethane	40.4		57 - 135		81%	SPK: 50
2037-26-5	Toluene-d8	42		67 - 123		84%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.8		33 - 141		110%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	819685	4.685				
540-36-3	1,4-Difluorobenzene	1432010	5.411				
3114-55-4	Chlorobenzene-d5	1659640	9.532				
3855-82-1	1,4-Dichlorobenzene-d4	912422	12.448				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-04	SDG No.:	E2914
Lab Sample ID:	E2914-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5
Sample Wt/Vol:	5.2 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038404.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
75-35-4	1,1-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-64-1	Acetone	2.5	UQ	2.5	2.5	25.3	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.51	U	0.51	0.51	5.1	ug/Kg
75-09-2	Methylene Chloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
75-34-3	1,1-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
78-93-3	2-Butanone	7.6	U	3.1	7.6	25.3	ug/Kg
56-23-5	Carbon Tetrachloride	0.51	U	0.51	0.51	5.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
67-66-3	Chloroform	0.51	U	0.51	0.51	5.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
71-43-2	Benzene	0.51	U	0.38	0.51	5.1	ug/Kg
107-06-2	1,2-Dichloroethane	0.51	U	0.51	0.51	5.1	ug/Kg
79-01-6	Trichloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-88-3	Toluene	0.51	U	0.51	0.51	5.1	ug/Kg
127-18-4	Tetrachloroethene	0.51	U	0.51	0.51	5.1	ug/Kg
108-90-7	Chlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	0.51	5.1	ug/Kg
1330-20-7	Total Xylenes	1.51	U	1.24	1.51	15.2	ug/Kg
103-65-1	n-propylbenzene	0.51	U	0.36	0.51	5.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.51	U	0.46	0.51	5.1	ug/Kg
98-06-6	tert-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
135-98-8	sec-Butylbenzene	0.51	U	0.51	0.51	5.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.51	U	0.37	0.51	5.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.51	U	0.41	0.51	5.1	ug/Kg
104-51-8	n-Butylbenzene	0.51	U	0.47	0.51	5.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.51	U	0.51	0.51	5.1	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-04	SDG No.:	E2914
Lab Sample ID:	E2914-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5
Sample Wt/Vol:	5.2 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038404.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	46.4		56 - 120		93%	SPK: 50
1868-53-7	Dibromofluoromethane	42.2		57 - 135		84%	SPK: 50
2037-26-5	Toluene-d8	44.5		67 - 123		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	57		33 - 141		114%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	735969	4.686				
540-36-3	1,4-Difluorobenzene	1273090	5.406				
3114-55-4	Chlorobenzene-d5	1447240	9.531				
3855-82-1	1,4-Dichlorobenzene-d4	850893	12.449				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-05	SDG No.:	E2914
Lab Sample ID:	E2914-09	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.6 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038405.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.6	U	0.6	0.6	6	ug/Kg
75-35-4	1,1-Dichloroethene	0.6	U	0.6	0.6	6	ug/Kg
67-64-1	Acetone	3	UQ	3	3	29.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.6	U	0.6	0.6	6	ug/Kg
75-09-2	Methylene Chloride	0.6	U	0.6	0.6	6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.6	U	0.6	0.6	6	ug/Kg
75-34-3	1,1-Dichloroethane	0.6	U	0.6	0.6	6	ug/Kg
78-93-3	2-Butanone	9	U	3.7	9	29.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.6	U	0.6	0.6	6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.6	U	0.6	0.6	6	ug/Kg
67-66-3	Chloroform	0.6	U	0.6	0.6	6	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.6	U	0.6	0.6	6	ug/Kg
71-43-2	Benzene	0.6	U	0.45	0.6	6	ug/Kg
107-06-2	1,2-Dichloroethane	0.6	U	0.6	0.6	6	ug/Kg
79-01-6	Trichloroethene	0.6	U	0.6	0.6	6	ug/Kg
108-88-3	Toluene	0.6	U	0.6	0.6	6	ug/Kg
127-18-4	Tetrachloroethene	0.6	U	0.6	0.6	6	ug/Kg
108-90-7	Chlorobenzene	0.6	U	0.6	0.6	6	ug/Kg
100-41-4	Ethyl Benzene	0.6	U	0.6	0.6	6	ug/Kg
1330-20-7	Total Xylenes	1.8	U	1.46	1.8	17.9	ug/Kg
103-65-1	n-propylbenzene	0.6	U	0.43	0.6	6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.6	U	0.54	0.6	6	ug/Kg
98-06-6	tert-Butylbenzene	0.6	U	0.6	0.6	6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.6	U	0.6	0.6	6	ug/Kg
135-98-8	sec-Butylbenzene	0.6	U	0.6	0.6	6	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.6	U	0.44	0.6	6	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.6	U	0.49	0.6	6	ug/Kg
104-51-8	n-Butylbenzene	0.6	U	0.55	0.6	6	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.6	U	0.6	0.6	6	ug/Kg
123-91-1	1,4-Dioxane	120	U	120	120	120	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-05	SDG No.:	E2914
Lab Sample ID:	E2914-09	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.6 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038405.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.8		56 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	41		57 - 135		82%	SPK: 50
2037-26-5	Toluene-d8	42.4		67 - 123		85%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.8		33 - 141		110%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	763991	4.69				
540-36-3	1,4-Difluorobenzene	1321620	5.41				
3114-55-4	Chlorobenzene-d5	1517290	9.54				
3855-82-1	1,4-Dichlorobenzene-d4	859271	12.45				

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MDL = Method Detection Limit
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-06	SDG No.:	E2914
Lab Sample ID:	E2914-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.8
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038406.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	UQ	2.6	2.6	26	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.8	U	3.2	7.8	26	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.4	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.27	1.52	15.6	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.37	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.38	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.43	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.48	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-06	SDG No.:	E2914
Lab Sample ID:	E2914-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.8
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038406.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.5		56 - 120		89%	SPK: 50
1868-53-7	Dibromofluoromethane	40.4		57 - 135		81%	SPK: 50
2037-26-5	Toluene-d8	43.3		67 - 123		87%	SPK: 50
460-00-4	4-Bromofluorobenzene	57		33 - 141		114%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	763599	4.69				
540-36-3	1,4-Difluorobenzene	1297470	5.41				
3114-55-4	Chlorobenzene-d5	1515990	9.54				
3855-82-1	1,4-Dichlorobenzene-d4	930478	12.45				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-07	SDG No.:	E2914
Lab Sample ID:	E2914-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038407.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.55	U	0.55	0.55	5.5	ug/Kg
75-35-4	1,1-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
67-64-1	Acetone	2.7	UQ	2.7	2.7	27.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.55	U	0.55	0.55	5.5	ug/Kg
75-09-2	Methylene Chloride	0.55	U	0.55	0.55	5.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
75-34-3	1,1-Dichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
78-93-3	2-Butanone	8.2	U	3.4	8.2	27.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	0.55	0.55	5.5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
67-66-3	Chloroform	0.55	U	0.55	0.55	5.5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
71-43-2	Benzene	0.55	U	0.42	0.55	5.5	ug/Kg
107-06-2	1,2-Dichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
79-01-6	Trichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
108-88-3	Toluene	0.55	U	0.55	0.55	5.5	ug/Kg
127-18-4	Tetrachloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
108-90-7	Chlorobenzene	0.55	U	0.55	0.55	5.5	ug/Kg
100-41-4	Ethyl Benzene	0.55	U	0.55	0.55	5.5	ug/Kg
1330-20-7	Total Xylenes	1.65	U	1.34	1.65	16.5	ug/Kg
103-65-1	n-propylbenzene	0.55	U	0.39	0.55	5.5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.55	U	0.49	0.55	5.5	ug/Kg
98-06-6	tert-Butylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
135-98-8	sec-Butylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.55	U	0.41	0.55	5.5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.55	U	0.45	0.55	5.5	ug/Kg
104-51-8	n-Butylbenzene	0.55	U	0.5	0.55	5.5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.55	U	0.55	0.55	5.5	ug/Kg
123-91-1	1,4-Dioxane	110	UQ	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-D-07	SDG No.:	E2914
Lab Sample ID:	E2914-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038407.D	1		07/19/13	VD071913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.9		56 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	37.5		57 - 135		75%	SPK: 50
2037-26-5	Toluene-d8	43.1		67 - 123		86%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		33 - 141		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	755108	4.69				
540-36-3	1,4-Difluorobenzene	1339450	5.41				
3114-55-4	Chlorobenzene-d5	1483680	9.54				
3855-82-1	1,4-Dichlorobenzene-d4	872379	12.45				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E2914-01	TB-001	1,2-Dichloroethane-d4	50	47.66	95		61 76	141 114
		Dibromofluoromethane	50	51.79	104		69	133
		Toluene-d8	50	46.18	92		65 88	126 110
		4-Bromofluorobenzene	50	42.21	84		58 86	135 115
E2914-02	TS-D-01	1,2-Dichloroethane-d4	50	53.22	106		56 70	120 121
		Dibromofluoromethane	50	49.68	99		57	135
		Toluene-d8	50	48.13	96		67 84	123 138
		4-Bromofluorobenzene	50	43.77	88		33 59	141 113
E2914-04	CS-D-01	1,2-Dichloroethane-d4	50	56.05	112		56	120
		Dibromofluoromethane	50	49.51	99		57	135
		Toluene-d8	50	47.35	95		67	123
		4-Bromofluorobenzene	50	45.47	91		33	141
E2914-05	CS-D-02	1,2-Dichloroethane-d4	50	53.33	107		56	120
		Dibromofluoromethane	50	48.57	97		57	135
		Toluene-d8	50	46.18	92		67	123
		4-Bromofluorobenzene	50	45.28	91		33	141
E2914-06	CS-D-03	1,2-Dichloroethane-d4	50	43.7	87		56	120
		Dibromofluoromethane	50	40.35	81		57	135
		Toluene-d8	50	41.95	84		67	123
		4-Bromofluorobenzene	50	54.78	110		33	141
E2914-07	CS-D-04	1,2-Dichloroethane-d4	50	46.36	93		56	120
		Dibromofluoromethane	50	42.24	84		57	135
		Toluene-d8	50	44.51	89		67	123
		4-Bromofluorobenzene	50	56.95	114		33	141
E2914-09	CS-D-05	1,2-Dichloroethane-d4	50	44.81	90		56	120
		Dibromofluoromethane	50	40.97	82		57	135
		Toluene-d8	50	42.41	85		67	123
		4-Bromofluorobenzene	50	54.82	110		33	141
E2914-10	CS-D-06	1,2-Dichloroethane-d4	50	44.54	89		56	120
		Dibromofluoromethane	50	40.35	81		57	135
		Toluene-d8	50	43.33	87		67	123
		4-Bromofluorobenzene	50	56.97	114		33	141
E2914-11	CS-D-07	1,2-Dichloroethane-d4	50	44.88	90		56	120
		Dibromofluoromethane	50	37.54	75		57	135
		Toluene-d8	50	43.11	86		67	123
		4-Bromofluorobenzene	50	53.21	106		33	141
VD0719SBL01	VD0719SBL01	1,2-Dichloroethane-d4	50	49.85	100		56	120
		Dibromofluoromethane	50	52.67	105		57	135
		Toluene-d8	50	49.25	99		67	123
		4-Bromofluorobenzene	50	47.94	96		33	141
VD0719SBS01	VD0719SBS01	1,2-Dichloroethane-d4	50	51.83	104		56	120
		Dibromofluoromethane	50	50.61	101		57	135
		Toluene-d8	50	49.25	99		67	123
		4-Bromofluorobenzene	50	48.14	96		33	141
VD0719SBSD01	VD0719SBSD01	1,2-Dichloroethane-d4	50	52.51	105		56	120
		Dibromofluoromethane	50	49.44	99		57	135
		Toluene-d8	50	49.24	98		67	123
		4-Bromofluorobenzene	50	50.15	100		33	141
VG0712WBL01	VG0712WBL01	1,2-Dichloroethane-d4	50	46.33	93		61	141
		Dibromofluoromethane	50	50.93	102		69	133
		Toluene-d8	50	48.31	97		65	126
		4-Bromofluorobenzene	50	41.16	82		58	135

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Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VG0712WBS01	VG0712WBS01	1,2-Dichloroethane-d4	50	50.03	100		61	141
		Dibromofluoromethane	50	54.35	109		69	133
		Toluene-d8	50	49.37	99		65	126
		4-Bromofluorobenzene	50	46.36	93		58	135
VG0712WBSD0	VG0712WBSD01	1,2-Dichloroethane-d4	50	47	94		61	141
		Dibromofluoromethane	50	51.71	103		69	133
		Toluene-d8	50	46.9	94		65	126
		4-Bromofluorobenzene	50	41.79	84		58	135
VT0716SBL01	VT0716SBL01	1,2-Dichloroethane-d4	50	51.37	103		56	120
		Dibromofluoromethane	50	49.64	99		57	135
		Toluene-d8	50	47.87	96		67	123
		4-Bromofluorobenzene	50	45.17	90		33	141
VT0716SBS01	VT0716SBS01	1,2-Dichloroethane-d4	50	52.43	105		56	120
		Dibromofluoromethane	50	55.11	110		57	135
		Toluene-d8	50	51.81	104		67	123
		4-Bromofluorobenzene	50	54.54	109		33	141

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VD038401.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0719SBS01	Vinyl chloride	20	20.6	ug/Kg	103			67	130	
	1,1-Dichloroethene	20	21.7	ug/Kg	109			74 59	130 172	
	Acetone	100	140	ug/Kg	140		*	57	135	
	Methyl tert-butyl Ether	20	21.6	ug/Kg	108			76	123	
	Methylene Chloride	20	21.9	ug/Kg	110			73	134	
	trans-1,2-Dichloroethene	20	21.3	ug/Kg	106			76	125	
	1,1-Dichloroethane	20	20.7	ug/Kg	104			78	124	
	2-Butanone	100	100	ug/Kg	100			68	132	
	Carbon Tetrachloride	20	19.6	ug/Kg	98			76	127	
	cis-1,2-Dichloroethene	20	20.3	ug/Kg	102			78	122	
	Chloroform	20	19.7	ug/Kg	99			79	122	
	1,1,1-Trichloroethane	20	21.2	ug/Kg	106			76	126	
	Benzene	20	20.3	ug/Kg	102			79 66	124 142	
	1,2-Dichloroethane	20	19.9	ug/Kg	100			78	124	
	Trichloroethene	20	19.5	ug/Kg	98			78 62	124 137	
	Toluene	20	20.5	ug/Kg	103			78 59	124 139	
	Tetrachloroethene	20	20.3	ug/Kg	102			67	134	
	Chlorobenzene	20	19.9	ug/Kg	100			80 60	121 133	
	Ethyl Benzene	20	19.4	ug/Kg	97			80	123	
	m/p-Xylenes	40	39.5	ug/Kg	99			79	126	
	o-Xylene	20	20.7	ug/Kg	104			80	122	
	N-propylbenzene	20	19	ug/Kg	95			80	125	
	1,3,5-Trimethylbenzene	20	18.9	ug/Kg	95			81	123	
	tert-Butylbenzene	20	19.1	ug/Kg	96			81	123	
	1,2,4-Trimethylbenzene	20	18.8	ug/Kg	94			81	122	
	Sec-butylbenzene	20	19.4	ug/Kg	97			81	126	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			82	120	
	1,4-Dichlorobenzene	20	19.6	ug/Kg	98			81	120	
	n-Butylbenzene	20	20.3	ug/Kg	102			75	129	
	1,2-Dichlorobenzene	20	18.4	ug/Kg	92			82	118	
	1,4-Dioxane	400	300	ug/Kg	75			50	150	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VD038415.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0719SBSD01	Vinyl chloride	20	18.8	ug/Kg	94	9		67	130	20
	1,1-Dichloroethene	20	20.3	ug/Kg	102	7		74	130	20
	Acetone	100	130	ug/Kg	130	7		57	135	20
	Methyl tert-butyl Ether	20	22	ug/Kg	110	2		76	123	20
	Methylene Chloride	20	22	ug/Kg	110	0		73	134	20
	trans-1,2-Dichloroethene	20	19.7	ug/Kg	99	7		76	125	20
	1,1-Dichloroethane	20	21.5	ug/Kg	108	4		78	124	20
	2-Butanone	100	120	ug/Kg	120	18		68	132	20
	Carbon Tetrachloride	20	18.7	ug/Kg	94	4		76	127	20
	cis-1,2-Dichloroethene	20	19.5	ug/Kg	98	4		78	122	20
	Chloroform	20	19.9	ug/Kg	100	1		79	122	20
	1,1,1-Trichloroethane	20	20.5	ug/Kg	103	3		76	126	20
	Benzene	20	20.9	ug/Kg	104	2		79	124	20
	1,2-Dichloroethane	20	21.1	ug/Kg	106	6		78	124	20
	Trichloroethene	20	20.9	ug/Kg	104	6		78	124	20
	Toluene	20	20.3	ug/Kg	102	1		78	124	20
	Tetrachloroethene	20	22	ug/Kg	110	8		67	134	20
	Chlorobenzene	20	20.5	ug/Kg	103	3		80	121	20
	Ethyl Benzene	20	21.2	ug/Kg	106	9		80	123	20
	m/p-Xylenes	40	44.2	ug/Kg	111	11		79	126	20
	o-Xylene	20	21.8	ug/Kg	109	5		80	122	20
	N-propylbenzene	20	18.8	ug/Kg	94	1		80	125	20
	1,3,5-Trimethylbenzene	20	19	ug/Kg	95	0		81	123	20
	tert-Butylbenzene	20	19.5	ug/Kg	98	2		81	123	20
	1,2,4-Trimethylbenzene	20	19.2	ug/Kg	96	2		81	122	20
	Sec-butylbenzene	20	19.5	ug/Kg	98	1		81	126	20
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99	0		82	120	20
	1,4-Dichlorobenzene	20	19.4	ug/Kg	97	1		81	120	20
	n-Butylbenzene	20	19.4	ug/Kg	97	5		75	129	20
	1,2-Dichlorobenzene	20	20.2	ug/Kg	101	9		82	118	20
	1,4-Dioxane	400	350	ug/Kg	88	16		50	150	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VG046986.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VG0712WBS01	Vinyl chloride	20	23.4	ug/L	117			65	137	
	1,1-Dichloroethene	20	22.1	ug/L	111			69	134	
	Acetone	100	110	ug/L	110			41	181	
	Methyl tert-butyl Ether	20	21.8	ug/L	109			72	136	
	Methylene Chloride	20	21.2	ug/L	106			67	138	
	trans-1,2-Dichloroethene	20	20.9	ug/L	104			72	132	
	1,1-Dichloroethane	20	22.5	ug/L	113			74	135	
	2-Butanone	100	110	ug/L	110			64	146	
	Carbon Tetrachloride	20	22.3	ug/L	112			71	134	
	cis-1,2-Dichloroethene	20	21.5	ug/L	108			74	130	
	Chloroform	20	22.7	ug/L	114			74	134	
	1,1,1-Trichloroethane	20	22.5	ug/L	113			74	133	
	Benzene	20	22.5	ug/L	113			75	125	
	1,2-Dichloroethane	20	21.4	ug/L	107			76	130	
	Trichloroethene	20	21.7	ug/L	109			73	127	
	Toluene	20	20.8	ug/L	104			74	125	
	Tetrachloroethene	20	21.6	ug/L	108			46	157	
	Chlorobenzene	20	20.6	ug/L	103			76	123	
	Ethyl Benzene	20	20.5	ug/L	103			75	126	
	m/p-Xylenes	40	41.9	ug/L	105			74	126	
	o-Xylene	20	20.3	ug/L	102			73	127	
	N-propylbenzene	20	20.3	ug/L	102			71	126	
	1,3,5-Trimethylbenzene	20	20.1	ug/L	101			71	127	
	tert-Butylbenzene	20	20.3	ug/L	102			66	129	
	1,2,4-Trimethylbenzene	20	19.5	ug/L	98			69	130	
	Sec-butylbenzene	20	19.8	ug/L	99			72	126	
	1,3-Dichlorobenzene	20	19.8	ug/L	99			70	125	
	1,4-Dichlorobenzene	20	20	ug/L	100			71	124	
	n-Butylbenzene	20	19.4	ug/L	97			68	128	
	1,2-Dichlorobenzene	20	19.6	ug/L	98			71	126	
	1,4-Dioxane	400	310	ug/L	78			50	150	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VG046987.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VG0712WBSD01	Vinyl chloride	20	21.5	ug/L	108	8		65	137	20
	1,1-Dichloroethene	20	19.8	ug/L	99	11		69	134	20
	Acetone	100	110	ug/L	110	0		41	181	20
	Methyl tert-butyl Ether	20	21.3	ug/L	106	3		72	136	20
	Methylene Chloride	20	20	ug/L	100	6		67	138	20
	trans-1,2-Dichloroethene	20	20.6	ug/L	103	1		72	132	20
	1,1-Dichloroethane	20	19.8	ug/L	99	13		74	135	20
	2-Butanone	100	100	ug/L	100	10		64	146	20
	Carbon Tetrachloride	20	21.7	ug/L	109	3		71	134	20
	cis-1,2-Dichloroethene	20	20.8	ug/L	104	4		74	130	20
	Chloroform	20	21	ug/L	105	8		74	134	20
	1,1,1-Trichloroethane	20	20.8	ug/L	104	8		74	133	20
	Benzene	20	21	ug/L	105	7		75	125	20
	1,2-Dichloroethane	20	20.6	ug/L	103	4		76	130	20
	Trichloroethene	20	20.2	ug/L	101	8		73	127	20
	Toluene	20	19.3	ug/L	97	7		74	125	20
	Tetrachloroethene	20	19.9	ug/L	100	8		46	157	20
	Chlorobenzene	20	19.3	ug/L	97	6		76	123	20
	Ethyl Benzene	20	19	ug/L	95	8		75	126	20
	m/p-Xylenes	40	38.5	ug/L	96	9		74	126	20
	o-Xylene	20	18.1	ug/L	91	11		73	127	20
	N-propylbenzene	20	19	ug/L	95	7		71	126	20
	1,3,5-Trimethylbenzene	20	19	ug/L	95	6		71	127	20
	tert-Butylbenzene	20	19.4	ug/L	97	5		66	129	20
	1,2,4-Trimethylbenzene	20	18.8	ug/L	94	4		69	130	20
	Sec-butylbenzene	20	19.2	ug/L	96	3		72	126	20
	1,3-Dichlorobenzene	20	19.1	ug/L	96	3		70	125	20
	1,4-Dichlorobenzene	20	19.5	ug/L	98	2		71	124	20
	n-Butylbenzene	20	18.5	ug/L	93	4		68	128	20
	1,2-Dichlorobenzene	20	18.9	ug/L	95	3		71	126	20
	1,4-Dioxane	400	370	ug/L	93	18		50	150	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VT006066.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VT0716SBS01	Vinyl chloride	20	23.1	ug/Kg	116			67	130	
	1,1-Dichloroethene	20	22.6	ug/Kg	113			74	130	
	Acetone	100	150	ug/Kg	150		*	57	135	
	Methyl tert-butyl Ether	20	23.6	ug/Kg	118			76	123	
	Methylene Chloride	20	24.6	ug/Kg	123			73	134	
	trans-1,2-Dichloroethene	20	22.8	ug/Kg	114			76	125	
	1,1-Dichloroethane	20	22.2	ug/Kg	111			78	124	
	2-Butanone	100	130	ug/Kg	130			68	132	
	Carbon Tetrachloride	20	22.5	ug/Kg	113			76	127	
	cis-1,2-Dichloroethene	20	21.3	ug/Kg	106			78	122	
	Chloroform	20	21.9	ug/Kg	110			79	122	
	1,1,1-Trichloroethane	20	24	ug/Kg	120			76	126	
	Benzene	20	20.2	ug/Kg	101			79	124	
	1,2-Dichloroethane	20	22.4	ug/Kg	112			78	124	
	Trichloroethene	20	21.4	ug/Kg	107			78	124	
	Toluene	20	19.7	ug/Kg	99			78	124	
	Tetrachloroethene	20	20.4	ug/Kg	102			67	134	
	Chlorobenzene	20	20.9	ug/Kg	104			80	121	
	Ethyl Benzene	20	20.2	ug/Kg	101			80	123	
	m/p-Xylenes	40	41	ug/Kg	103			79	126	
	o-Xylene	20	21.1	ug/Kg	106			80	122	
	N-propylbenzene	20	20.7	ug/Kg	104			80	125	
	1,3,5-Trimethylbenzene	20	20.6	ug/Kg	103			81	123	
	tert-Butylbenzene	20	20.1	ug/Kg	101			81	123	
	1,2,4-Trimethylbenzene	20	20.5	ug/Kg	103			81	122	
	Sec-butylbenzene	20	20.8	ug/Kg	104			81	126	
	1,3-Dichlorobenzene	20	20.6	ug/Kg	103			82	120	
	1,4-Dichlorobenzene	20	21	ug/Kg	105			81	120	
	n-Butylbenzene	20	20.6	ug/Kg	103			75	129	
	1,2-Dichlorobenzene	20	21.2	ug/Kg	106			82	118	
	1,4-Dioxane	400	480	ug/Kg	120			50	150	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0719SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VD038400.D Lab Sample ID: VD0719SBL01

Date Analyzed: 07/19/2013 Time Analyzed: 12:25

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0719SBS01	VD0719SBS01	VD038401.D	07/19/2013
CS-D-02	E2914-05	VD038402.D	07/19/2013
CS-D-03	E2914-06	VD038403.D	07/19/2013
CS-D-04	E2914-07	VD038404.D	07/19/2013
CS-D-05	E2914-09	VD038405.D	07/19/2013
CS-D-06	E2914-10	VD038406.D	07/19/2013
CS-D-07	E2914-11	VD038407.D	07/19/2013
VD0719SBSD01	VD0719SBSD01	VD038415.D	07/19/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VG0712WBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VG046985.D Lab Sample ID: VG0712WBL01

Date Analyzed: 07/12/2013 Time Analyzed: 12:37

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VG0712WBS01	VG0712WBS01	VG046986.D	07/12/2013
VG0712WBSD01	VG0712WBSD01	VG046987.D	07/12/2013
TB-001	E2914-01	VG046997.D	07/12/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VT0716SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VT006065.D Lab Sample ID: VT0716SBL01

Date Analyzed: 07/16/2013 Time Analyzed: 11:33

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VT0716SBS01	VT0716SBS01	VT006066.D	07/16/2013
TS-D-01	E2914-02	VT006067.D	07/16/2013
CS-D-01	E2914-04	VT006068.D	07/16/2013

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VD038390.D BFB Injection Date: 07/18/2013

Instrument ID: MSVOA_D BFB Injection Time: 15:52

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.5
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	78.3
175	5.0 - 9.0% of mass 174	6.4 (8.2) 1
176	95.0 - 101.0% of mass 174	74.8 (95.6) 1
177	5.0 - 9.0% of mass 176	5.5 (7.3) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VD038391.D	07/18/2013	17:08
VSTDICC010	VSTDICC010	VD038392.D	07/18/2013	17:39
VSTDICC020	VSTDICC020	VD038393.D	07/18/2013	18:09
VSTDICCC050	VSTDICCC050	VD038394.D	07/18/2013	18:39
VSTDICC100	VSTDICC100	VD038395.D	07/18/2013	19:10
VSTDICC150	VSTDICC150	VD038396.D	07/18/2013	19:40

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VD038398.D BFB Injection Date: 07/19/2013

Instrument ID: MSVOA_D BFB Injection Time: 09:18

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.8
75	30.0 - 60.0% of mass 95	44.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	74.6
175	5.0 - 9.0% of mass 174	4.5 (6) 1
176	95.0 - 101.0% of mass 174	74.2 (99.5) 1
177	5.0 - 9.0% of mass 176	4.4 (6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD038399.D	07/19/2013	10:44
VD0719SBL01	VD0719SBL01	VD038400.D	07/19/2013	12:25
VD0719SBS01	VD0719SBS01	VD038401.D	07/19/2013	13:00
CS-D-02	E2914-05	VD038402.D	07/19/2013	14:06
CS-D-03	E2914-06	VD038403.D	07/19/2013	14:37
CS-D-04	E2914-07	VD038404.D	07/19/2013	15:08
CS-D-05	E2914-09	VD038405.D	07/19/2013	15:39
CS-D-06	E2914-10	VD038406.D	07/19/2013	16:10
CS-D-07	E2914-11	VD038407.D	07/19/2013	16:42
VD0719SBSD01	VD0719SBSD01	VD038415.D	07/19/2013	20:50

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VG046975.D BFB Injection Date: 07/11/2013

Instrument ID: MSVOA_G BFB Injection Time: 10:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.5
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.1 (0.2) 1
174	50.0 - 100.0% of mass 95	80.6
175	5.0 - 9.0% of mass 174	6.8 (8.4) 1
176	95.0 - 101.0% of mass 174	78.9 (97.8) 1
177	5.0 - 9.0% of mass 176	5.2 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VG046977.D	07/11/2013	14:25
VSTDICC020	VSTDICC020	VG046978.D	07/11/2013	14:54
VSTDICCC050	VSTDICCC050	VG046979.D	07/11/2013	15:23
VSTDICC100	VSTDICC100	VG046980.D	07/11/2013	15:52
VSTDICC150	VSTDICC150	VG046981.D	07/11/2013	16:21

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VG046983.D BFB Injection Date: 07/12/2013

Instrument ID: MSVOA_G BFB Injection Time: 10:48

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	48.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	87.1
175	5.0 - 9.0% of mass 174	6.9 (7.9) 1
176	95.0 - 101.0% of mass 174	84.9 (97.5) 1
177	5.0 - 9.0% of mass 176	5 (5.9) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VG046984.D	07/12/2013	11:34
VG0712WBL01	VG0712WBL01	VG046985.D	07/12/2013	12:37
VG0712WBS01	VG0712WBS01	VG046986.D	07/12/2013	13:15
VG0712WBSD01	VG0712WBSD01	VG046987.D	07/12/2013	13:44
TB-001	E2914-01	VG046997.D	07/12/2013	19:08

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VT005920.D BFB Injection Date: 07/11/2013

Instrument ID: MSVOA_T BFB Injection Time: 08:59

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.8
75	30.0 - 60.0% of mass 95	57.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	80.8
175	5.0 - 9.0% of mass 174	6.3 (7.8) 1
176	95.0 - 101.0% of mass 174	78.1 (96.6) 1
177	5.0 - 9.0% of mass 176	5.1 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VT005921.D	07/11/2013	09:40
VSTDICC010	VSTDICC010	VT005922.D	07/11/2013	10:08
VSTDICC020	VSTDICC020	VT005923.D	07/11/2013	10:37
VSTDICCC050	VSTDICCC050	VT005924.D	07/11/2013	11:04
VSTDICC100	VSTDICC100	VT005925.D	07/11/2013	11:31
VSTDICC150	VSTDICC150	VT005926.D	07/11/2013	11:57

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VT006063.D BFB Injection Date: 07/16/2013

Instrument ID: MSVOA_T BFB Injection Time: 09:38

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24
75	30.0 - 60.0% of mass 95	56.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	83.4
175	5.0 - 9.0% of mass 174	6.3 (7.6) 1
176	95.0 - 101.0% of mass 174	79.7 (95.6) 1
177	5.0 - 9.0% of mass 176	5.5 (6.9) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VT006064.D	07/16/2013	10:47
VT0716SBL01	VT0716SBL01	VT006065.D	07/16/2013	11:33
VT0716SBS01	VT0716SBS01	VT006066.D	07/16/2013	12:09
TS-D-01	E2914-02	VT006067.D	07/16/2013	12:36
CS-D-01	E2914-04	VT006068.D	07/16/2013	13:03

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VD038399.D Date Analyzed: 07/19/2013

Instrument ID: MSVOA_D Time Analyzed: 10:44

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1034290	4.67	1577560	5.40	1445690	9.52
UPPER LIMIT	2068580	5.17	3155110	5.9	2891370	10.02
LOWER LIMIT	517145	4.17	788779	4.9	722843	9.02
EPA SAMPLE NO.						
CS-D-02	918860	4.69	1535940	5.40	1427340	9.54
CS-D-03	819685	4.69	1432010	5.41	1659640	9.53
CS-D-04	735969	4.69	1273090	5.41	1447240	9.53
CS-D-05	763991	4.69	1321620	5.41	1517290	9.54
CS-D-06	763599	4.69	1297470	5.41	1515990	9.54
CS-D-07	755108	4.69	1339450	5.41	1483680	9.54
VD0719SBL01	1101680	4.68	1641470	5.40	1547980	9.52
VD0719SBS01	956016	4.68	1534680	5.40	1368320	9.52
VD0719SBSD01	1108100	4.69	1721900	5.41	1500920	9.53

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VD038399.D Date Analyzed: 07/19/2013

Instrument ID: MSVOA_D Time Analyzed: 10:44

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	728931	12.44				
UPPER LIMIT	1457860	12.94				
LOWER LIMIT	364466	11.94				
EPA SAMPLE NO.						
CS-D-02	689765	12.45				
CS-D-03	912422	12.45				
CS-D-04	850893	12.45				
CS-D-05	859271	12.45				
CS-D-06	930478	12.45				
CS-D-07	872379	12.45				
VD0719SBL01	814537	12.44				
VD0719SBS01	732376	12.44				
VD0719SBSD01	849649	12.45				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VG046984.D Date Analyzed: 07/12/2013

Instrument ID: MSVOA_G Time Analyzed: 11:34

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	309946	4.37	564612	5.15	437608	9.90
UPPER LIMIT	619892	4.87	1129220	5.65	875216	10.4
LOWER LIMIT	154973	3.87	282306	4.65	218804	9.4
EPA SAMPLE NO.						
TB-001	237260	4.38	445832	5.16	319807	9.91
VG0712WBL01	278012	4.37	513057	5.15	383729	9.90
VG0712WBS01	330584	4.38	610873	5.16	469580	9.90
VG0712WBSD01	327497	4.38	599551	5.16	456570	9.91

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VG046984.D Date Analyzed: 07/12/2013

Instrument ID: MSVOA_G Time Analyzed: 11:34

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	141833	13.68				
UPPER LIMIT	283666	14.18				
LOWER LIMIT	70916.5	13.18				
EPA SAMPLE NO.						
TB-001	98340	13.68				
VG0712WBL01	125941	13.68				
VG0712WBS01	151061	13.68				
VG0712WBSD01	139676	13.68				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VT006064.D Date Analyzed: 07/16/2013

Instrument ID: MSVOA_T Time Analyzed: 10:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	869859	7.42	1263070	8.38	1107460	11.22
UPPER LIMIT	1739720	7.92	2526140	8.88	2214920	11.72
LOWER LIMIT	434930	6.92	631536	7.88	553731	10.72
EPA SAMPLE NO.		✓		✓		✓
TS-D-01	622416	7.43	979464	8.38	831733	11.22
CS-D-01	576136	7.43	944999	8.38	817193	11.22
VT0716SBL01	806775	7.42	1274250	8.38	1063270	11.22
VT0716SBS01	812143	7.42	1204250	8.37	1049900	11.22

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: VT006064.D Date Analyzed: 07/16/2013

Instrument ID: MSVOA_T Time Analyzed: 10:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	621980	13.16				
UPPER LIMIT	1243960	13.66				
LOWER LIMIT	310990	12.66				
EPA SAMPLE NO.						
TS-D-01	371422	13.16				
CS-D-01	389570	13.16				
VT0716SBL01	540498	13.16				
VT0716SBS01	593815	13.16				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	11.8
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF063928.D	1	07/12/13	07/13/13	PB70922

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	37.7	U	8.7	37.7	370	ug/Kg
95-48-7	2-Methylphenol	37.7	U	20.5	37.7	370	ug/Kg
65794-96-9	3+4-Methylphenols	37.7	U	19.6	37.7	370	ug/Kg
91-20-3	Naphthalene	37.7	U	13	37.7	370	ug/Kg
208-96-8	Acenaphthylene	37.7	U	9.5	37.7	370	ug/Kg
83-32-9	Acenaphthene	37.7	U	10.6	37.7	370	ug/Kg
132-64-9	Dibenzofuran	37.7	U	14.7	37.7	370	ug/Kg
86-73-7	Fluorene	37.7	U	14.3	37.7	370	ug/Kg
118-74-1	Hexachlorobenzene	37.7	U	15.4	37.7	370	ug/Kg
87-86-5	Pentachlorophenol	37.7	U	25.8	37.7	370	ug/Kg
85-01-8	Phenanthrene	37.7	U	10.2	37.7	370	ug/Kg
120-12-7	Anthracene	37.7	U	7.7	37.7	370	ug/Kg
206-44-0	Fluoranthene	37.7	U	7.6	37.7	370	ug/Kg
129-00-0	Pyrene	37.7	U	9.1	37.7	370	ug/Kg
56-55-3	Benzo(a)anthracene	37.7	U	18	37.7	370	ug/Kg
218-01-9	Chrysene	37.7	U	17.1	37.7	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	37.7	U	12.3	37.7	370	ug/Kg
207-08-9	Benzo(k)fluoranthene	37.7	U	17.8	37.7	370	ug/Kg
50-32-8	Benzo(a)pyrene	37.7	U	8.2	37.7	370	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	37.7	U	12.6	37.7	370	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	37.7	U	10.9	37.7	370	ug/Kg
191-24-2	Benzo(g,h,i)perylene	37.7	U	15.3	37.7	370	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	81.3		28 - 127		54%	SPK: 150
13127-88-3	Phenol-d6	97.7		34 - 127		65%	SPK: 150
4165-60-0	Nitrobenzene-d5	67.9		31 - 132		68%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.4		39 - 123		66%	SPK: 100
118-79-6	2,4,6-Tribromophenol	91.5		30 - 133		61%	SPK: 150
1718-51-0	Terphenyl-d14	49.2		37 - 115		49%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	183117	4.92				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	11.8
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF063928.D	1	07/12/13	07/13/13	PB70922

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	798037	6.17				
15067-26-2	Acenaphthene-d10	436896	7.89				
1517-22-2	Phenanthrene-d10	798480	9.34				
1719-03-5	Chrysene-d12	858313	11.92				
1520-96-3	Perylene-d12	735709	13.23				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6.7
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF063929.D	1	07/12/13	07/13/13	PB70922

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.7	U	8.2	35.7	350	ug/Kg
95-48-7	2-Methylphenol	35.7	U	19.4	35.7	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.7	U	18.5	35.7	350	ug/Kg
91-20-3	Naphthalene	35.7	U	12.3	35.7	350	ug/Kg
208-96-8	Acenaphthylene	35.7	U	9	35.7	350	ug/Kg
83-32-9	Acenaphthene	35.7	U	10.1	35.7	350	ug/Kg
132-64-9	Dibenzofuran	35.7	U	13.9	35.7	350	ug/Kg
86-73-7	Fluorene	35.7	U	13.5	35.7	350	ug/Kg
118-74-1	Hexachlorobenzene	35.7	U	14.5	35.7	350	ug/Kg
87-86-5	Pentachlorophenol	35.7	U	24.4	35.7	350	ug/Kg
85-01-8	Phenanthrene	35.7	U	9.6	35.7	350	ug/Kg
120-12-7	Anthracene	35.7	U	7.3	35.7	350	ug/Kg
206-44-0	Fluoranthene	35.7	U	7.2	35.7	350	ug/Kg
129-00-0	Pyrene	35.7	U	8.6	35.7	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.7	U	17	35.7	350	ug/Kg
218-01-9	Chrysene	35.7	U	16.2	35.7	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.7	U	11.7	35.7	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.7	U	16.8	35.7	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.7	U	7.7	35.7	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.7	U	11.9	35.7	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.7	U	10.3	35.7	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.7	U	14.4	35.7	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	73.3		28 - 127		49%	SPK: 150
13127-88-3	Phenol-d6	91.9		34 - 127		61%	SPK: 150
4165-60-0	Nitrobenzene-d5	63.8		31 - 132		64%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.7		39 - 123		67%	SPK: 100
118-79-6	2,4,6-Tribromophenol	85.3		30 - 133		57%	SPK: 150
1718-51-0	Terphenyl-d14	49.2		37 - 115		49%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	176351	4.92				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6.7
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF063929.D	1	07/12/13	07/13/13	PB70922

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	776863	6.17				
15067-26-2	Acenaphthene-d10	419427	7.89				
1517-22-2	Phenanthrene-d10	797238	9.34				
1719-03-5	Chrysene-d12	845238	11.92				
1520-96-3	Perylene-d12	738963	13.23				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	7.4
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064207.D	1	07/18/13	07/23/13	PB71101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	36	U	8.3	36	360	ug/Kg
95-48-7	2-Methylphenol	36	U	19.5	36	360	ug/Kg
65794-96-9	3+4-Methylphenols	36	U	18.7	36	360	ug/Kg
91-20-3	Naphthalene	36	U	12.4	36	360	ug/Kg
208-96-8	Acenaphthylene	36	U	9.1	36	360	ug/Kg
83-32-9	Acenaphthene	36	U	10.1	36	360	ug/Kg
132-64-9	Dibenzofuran	36	U	14	36	360	ug/Kg
86-73-7	Fluorene	36	U	13.6	36	360	ug/Kg
118-74-1	Hexachlorobenzene	36	U	14.7	36	360	ug/Kg
87-86-5	Pentachlorophenol	36	UJ	24.6	36	360	ug/Kg
85-01-8	Phenanthrene	36	U	9.7	36	360	ug/Kg
120-12-7	Anthracene	36	U	7.3	36	360	ug/Kg
206-44-0	Fluoranthene	36	U	7.2	36	360	ug/Kg
129-00-0	Pyrene	36	U	8.6	36	360	ug/Kg
56-55-3	Benzo(a)anthracene	36	UJ	17.2	36	360	ug/Kg
218-01-9	Chrysene	36	U	16.3	36	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	36	UQ	11.8	36	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	36	UJ UQ	16.9	36	360	ug/Kg
50-32-8	Benzo(a)pyrene	36	U	7.8	36	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	36	U	12	36	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	36	U	10.4	36	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	36	U	14.6	36	360	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	110		28 - 127		75%	SPK: 150
13127-88-3	Phenol-d6	120		34 - 127		79%	SPK: 150
4165-60-0	Nitrobenzene-d5	85.4		31 - 132		85%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.7		39 - 123		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		30 - 133		86%	SPK: 150
1718-51-0	Terphenyl-d14	72		37 - 115		72%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	120026	4.29				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	7.4
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064207.D	1	07/18/13	07/23/13	PB71101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	517120	5.59				
15067-26-2	Acenaphthene-d10	286800	7.28				
1517-22-2	Phenanthrene-d10	561469	8.7				
1719-03-5	Chrysene-d12	565204	11.24				
1520-96-3	Perylene-d12	513709	12.51				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Surrogate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E2873-08MS	Z-2-S-4(9-10)MS	2-Fluorophenol	150	100.03	67		~~28~~ 25	~~127~~ 121
		Phenol-d6	150	107.54	72		~~34~~ 24	~~127~~ 113
		Nitrobenzene-d5	100	72.68	73		~~31~~ 23	~~132~~ 120
		2-Fluorobiphenyl	100	68.57	69		~~39~~ 30	~~123~~ 115
		2,4,6-Tribromophenol	150	101.94	68		~~30~~ 19	~~133~~ 122
		Terphenyl-d14	100	61.43	61		~~37~~ 18	~~115~~ 137
E2873-08MSD	Z-2-S-4(9-10)MSD	2-Fluorophenol	150	100.81	67		28	127
		Phenol-d6	150	114.64	76		34	127
		Nitrobenzene-d5	100	70.91	71		31	132
		2-Fluorobiphenyl	100	67.55	68		39	123
		2,4,6-Tribromophenol	150	99.18	66		30	133
		Terphenyl-d14	100	58.59	59		37	115
E2914-03	TS-C-01	2-Fluorophenol	150	81.29	54		28	127
		Phenol-d6	150	97.69	65		34	127
		Nitrobenzene-d5	100	67.92	68		31	132
		2-Fluorobiphenyl	100	66.42	66		39	123
		2,4,6-Tribromophenol	150	91.52	61		30	133
		Terphenyl-d14	100	49.22	49		37	115
E2914-08	CS-C-01	2-Fluorophenol	150	73.25	49		28	127
		Phenol-d6	150	91.88	61		34	127
		Nitrobenzene-d5	100	63.80	64		31	132
		2-Fluorobiphenyl	100	66.73	67		39	123
		2,4,6-Tribromophenol	150	85.32	57		30	133
		Terphenyl-d14	100	49.24	49		37	115
PB70922BL	PB70922BL	2-Fluorophenol	150	101.03	67		28	127
		Phenol-d6	150	118.66	79		34	127
		Nitrobenzene-d5	100	80.21	80		31	132
		2-Fluorobiphenyl	100	76.29	76		39	123
		2,4,6-Tribromophenol	150	103.72	69		30	133
		Terphenyl-d14	100	60.19	60		37	115
PB70922BS	PB70922BS	2-Fluorophenol	150	129.73	86		28	127
		Phenol-d6	150	128.63	86		34	127
		Nitrobenzene-d5	100	80.22	80		31	132
		2-Fluorobiphenyl	100	81.77	82		39	123
		2,4,6-Tribromophenol	150	120.65	80		30	133
		Terphenyl-d14	100	71.58	72		37	115

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Surrogate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E2914-12	CS-C-02	2-Fluorophenol	150	112.12	75		28	127
		Phenol-d6	150	117.77	79		34	127
		Nitrobenzene-d5	100	85.37	85		31	132
		2-Fluorobiphenyl	100	79.74	80		39	123
		2,4,6-Tribromophenol	150	129.15	86		30	133
		Terphenyl-d14	100	71.98	72		37	115
E2979-07MS	B-11-W1-071713MS	2-Fluorophenol	150	95.58	64		28	127
		Phenol-d6	150	94.69	63		34	127
		Nitrobenzene-d5	100	76.93	77		31	132
		2-Fluorobiphenyl	100	64.97	65		39	123
		2,4,6-Tribromophenol	150	85.21	57		30	133
		Terphenyl-d14	100	77.14	77		37	115
E2979-08MSD	B-11-W1-071713MSD	2-Fluorophenol	150	86.36	58		28	127
		Phenol-d6	150	84.09	56		34	127
		Nitrobenzene-d5	100	66.18	66		31	132
		2-Fluorobiphenyl	100	62.36	62		39	123
		2,4,6-Tribromophenol	150	83.11	55		30	133
		Terphenyl-d14	100	57.51	58		37	115
PB71101BL	PB71101BL	2-Fluorophenol	150	97.60	65		28	127
		Phenol-d6	150	91.80	61		34	127
		Nitrobenzene-d5	100	70.91	71		31	132
		2-Fluorobiphenyl	100	69.29	69		39	123
		2,4,6-Tribromophenol	150	98.60	66		30	133
		Terphenyl-d14	100	62.76	63		37	115
PB71101BS	PB71101BS	2-Fluorophenol	150	109.84	73		28	127
		Phenol-d6	150	98.95	66		34	127
		Nitrobenzene-d5	100	79.02	79		31	132
		2-Fluorobiphenyl	100	74.10	74		39	123
		2,4,6-Tribromophenol	150	118.38	79		30	133
		Terphenyl-d14	100	79.69	80		37	115

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E2873-08MS	**Client Sample ID: Z-2-S-4(9-10)MS**						**DataFile: BF063919.D**				
Phenol	1900	0	1400	ug/Kg	74	✓			~~40~~ 26	~~115~~	90
2-Methylphenol	1900	0	1300	ug/Kg	68				48	111	
3+4-Methylphenols	1900	0	1400	ug/Kg	74				46	115	
Naphthalene	1900	0	1400	ug/Kg	74				42	121	
Acenaphthylene	1900	0	1300	ug/Kg	68				45	117	
Acenaphthene	1900	0	1300	ug/Kg	68				45	118	
Dibenzofuran	1900	0	1400	ug/Kg	74				45	118	
Fluorene	1900	0	1300	ug/Kg	68				41	121	
Hexachlorobenzene	1900	0	1400	ug/Kg	74				48	114	
Pentachlorophenol	3700	0	3700	ug/Kg	100				~~15~~ 17	~~145~~	109
Phenanthrene	1900	0	1500	ug/Kg	79				29	138	
Anthracene	1900	0	1500	ug/Kg	79				45	120	
Fluoranthene	1900	0	1500	ug/Kg	79				33	133	
Pyrene	1900	0	1500	ug/Kg	79				~~31~~ 35	~~135~~	142
Benzo(a)anthracene	1900	0	1500	ug/Kg	79				35	132	
Chrysene	1900	0	1500	ug/Kg	79				34	131	
Benzo(b)fluoranthene	1900	0	1600	ug/Kg	84				35	128	
Benzo(k)fluoranthene	1900	0	1100	ug/Kg	58				39	117	
Benzo(a)pyrene	1900	0	1400	ug/Kg	74				35	129	
Indeno(1,2,3-cd)pyrene	1900	0	1500	ug/Kg	79				30	140	
Dibenz(a,h)anthracene	1900	0	1300	ug/Kg	68				18	147	
Benzo(g,h,i)perylene	1900	0	1300	ug/Kg	68				31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E2873-08MSD	**Client Sample ID: Z-2-S-4(9-10)MSD**						**DataFile: BF063920.D**				
Phenol	1900	0	1500	ug/Kg	79		7		40	115	20
2-Methylphenol	1900	0	1300	ug/Kg	68		0		48	111	20
3+4-Methylphenols	1900	0	1400	ug/Kg	74		0		46	115	20
Naphthalene	1900	0	1300	ug/Kg	68		8		42	121	20
Acenaphthylene	1900	0	1300	ug/Kg	68		0		45	117	20
Acenaphthene	1900	0	1300	ug/Kg	68		0		45	118	20
Dibenzofuran	1900	0	1400	ug/Kg	74		0		45	118	20
Fluorene	1900	0	1300	ug/Kg	68		0		41	121	20
Hexachlorobenzene	1900	0	1300	ug/Kg	68		8		48	114	20
Pentachlorophenol	3700	0	3300	ug/Kg	89		12		15	145	20
Phenanthrene	1900	0	1400	ug/Kg	74		7		29	138	20
Anthracene	1900	0	1500	ug/Kg	79		0		45	120	20
Fluoranthene	1900	0	1500	ug/Kg	79		0		33	133	20
Pyrene	1900	0	1400	ug/Kg	74		7		31	135	20
Benzo(a)anthracene	1900	0	1400	ug/Kg	74		7		35	132	20
Chrysene	1900	0	1500	ug/Kg	79		0		34	131	20
Benzo(b)fluoranthene	1900	0	1400	ug/Kg	74		13		35	128	20
Benzo(k)fluoranthene	1900	0	1100	ug/Kg	58		0		39	117	20
Benzo(a)pyrene	1900	0	1300	ug/Kg	68		8		35	129	20
Indeno(1,2,3-cd)pyrene	1900	0	1300	ug/Kg	68		15		30	140	20
Dibenz(a,h)anthracene	1900	0	1200	ug/Kg	63		8		18	147	20
Benzo(g,h,i)perylene	1900	0	1300	ug/Kg	68		0		31	132	20

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E2979-07MS	**Client Sample ID:**	**B-11-W1-071713MS**					**DataFile:**	**BF064089.D**			
Phenol	1800	0	1200	ug/Kg	67				40	115	
2-Methylphenol	1800	0	1200	ug/Kg	67				48	111	
3+4-Methylphenols	1800	0	1300	ug/Kg	72				46	115	
Naphthalene	1800	0	1800	ug/Kg	100				42	121	
Acenaphthylene	1800	0	1700	ug/Kg	94				45	117	
Acenaphthene	1800	0	2400	ug/Kg	133	*			45	118	
Dibenzofuran	1800	0	2300	ug/Kg	128	*			45	118	
Fluorene	1800	0	2300	ug/Kg	128	*			41	121	
Hexachlorobenzene	1800	0	1300	ug/Kg	72				48	114	
Pentachlorophenol	3700	0	3200	ug/Kg	86				15	145	
Phenanthrene	1800	920	9800	ug/Kg	493	*			29	138	
Anthracene	1800	300	4100	ug/Kg	211	*			45	120	
Fluoranthene	1800	2200	11400	ug/Kg	511	*			33	133	
Pyrene	1800	2500	11900	ug/Kg	522	*			31	135	
Benzo(a)anthracene	1800	2300	11000	ug/Kg	483	*			35	132	
Chrysene	1800	1800	8700	ug/Kg	383	*			34	131	
Benzo(b)fluoranthene	1800	1400	7800	ug/Kg	356	*			35	128	
Benzo(k)fluoranthene	1800	2200	2900	ug/Kg	39				39	117	
Benzo(a)pyrene	1800	1800	5400	ug/Kg	200	*			35	129	
Indeno(1,2,3-cd)pyrene	1800	1300	6500	ug/Kg	289	*			30	140	
Dibenz(a,h)anthracene	1800	720	3200	ug/Kg	138				18	147	
Benzo(g,h,i)perylene	1800	1400	4500	ug/Kg	172	*			31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E2979-08MSD	**Client Sample ID:**		**B-11-W1-071713MSD**				**DataFile:**		**BF064090.D**		
Phenol	1800	0	1100	ug/Kg	61		9		40	115	20
2-Methylphenol	1800	0	1000	ug/Kg	56		18		48	111	20
3+4-Methylphenols	1800	0	1100	ug/Kg	61		17		46	115	20
Naphthalene	1800	0	1200	ug/Kg	67		40	*	42	121	20
Acenaphthylene	1800	0	1200	ug/Kg	67		34	*	45	117	20
Acenaphthene	1800	0	1100	ug/Kg	61		74	*	45	118	20
Dibenzofuran	1800	0	1200	ug/Kg	67		63	*	45	118	20
Fluorene	1800	0	1200	ug/Kg	67		63	*	41	121	20
Hexachlorobenzene	1800	0	1100	ug/Kg	61		17		48	114	20
Pentachlorophenol	3700	0	2700	ug/Kg	73		16		15	145	20
Phenanthrene	1800	920	2300	ug/Kg	77		146	*	29	138	20
Anthracene	1800	300	1400	ug/Kg	61		110	*	45	120	20
Fluoranthene	1800	2200	3700	ug/Kg	83		144	*	33	133	20
Pyrene	1800	2500	3900	ug/Kg	78		148	*	31	135	20
Benzo(a)anthracene	1800	2300	3900	ug/Kg	89		138	*	35	132	20
Chrysene	1800	1800	3800	ug/Kg	111		110	*	34	131	20
Benzo(b)fluoranthene	1800	1400	4100	ug/Kg	150	*	81	*	35	128	20
Benzo(k)fluoranthene	1800	2200	1600	ug/Kg	-33	*	2400	*	39	117	20
Benzo(a)pyrene	1800	1800	2700	ug/Kg	50		120	*	35	129	20
Indeno(1,2,3-cd)pyrene	1800	1300	2900	ug/Kg	89		106	*	30	140	20
Dibenz(a,h)anthracene	1800	720	1500	ug/Kg	43		105	*	18	147	20
Benzo(g,h,i)perylene	1800	1400	2700	ug/Kg	72		82	*	31	132	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF063912.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Limits Qual	Low	High	RPD
PB70922BS	Phenol	1700	1600	ug/Kg	94				51	101	
	2-Methylphenol	1700	1500	ug/Kg	88				49	105	
	3+4-Methylphenols	1700	1500	ug/Kg	88				52	102	
	Naphthalene	1700	1500	ug/Kg	88				53	103	
	Acenaphthylene	1700	1400	ug/Kg	82				57	101	
	Acenaphthene	1700	1400	ug/Kg	82				57	102	
	Dibenzofuran	1700	1400	ug/Kg	82				57	100	
	Fluorene	1700	1400	ug/Kg	82				57	101	
	Hexachlorobenzene	1700	1500	ug/Kg	88				54	106	
	Pentachlorophenol	3300	3700	ug/Kg	112				49	116	
	Phenanthrene	1700	1500	ug/Kg	88				58	101	
	Anthracene	1700	1600	ug/Kg	94				57	102	
	Fluoranthene	1700	1600	ug/Kg	94				56	102	
	Pyrene	1700	1600	ug/Kg	94				56	106	
	Benzo(a)anthracene	1700	1600	ug/Kg	94				56	103	
	Chrysene	1700	1700	ug/Kg	100				58	102	
	Benzo(b)fluoranthene	1700	1600	ug/Kg	94				56	103	
	Benzo(k)fluoranthene	1700	1300	ug/Kg	76				55	102	
	Benzo(a)pyrene	1700	1500	ug/Kg	88				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				50	113	
	Dibenz(a,h)anthracene	1700	1300	ug/Kg	76				52	119	
	Benzo(g,h,i)perylene	1700	1500	ug/Kg	88				56	105	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF064100.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71101BS	Phenol	1700	1300	ug/Kg	76				51	101	
	2-Methylphenol	1700	1300	ug/Kg	76				49	105	
	3+4-Methylphenols	1700	1300	ug/Kg	76				52	102	
	Naphthalene	1700	1400	ug/Kg	82				53	103	
	Acenaphthylene	1700	1300	ug/Kg	76				57	101	
	Acenaphthene	1700	1300	ug/Kg	76				57	102	
	Dibenzofuran	1700	1300	ug/Kg	76				57	100	
	Fluorene	1700	1400	ug/Kg	82				57	101	
	Hexachlorobenzene	1700	1300	ug/Kg	76				54	106	
	Pentachlorophenol	3300	3400	ug/Kg	103				49	116	
	Phenanthrene	1700	1300	ug/Kg	76				58	101	
	Anthracene	1700	1400	ug/Kg	82				57	102	
	Fluoranthene	1700	1300	ug/Kg	76				56	102	
	Pyrene	1700	1500	ug/Kg	88				56	106	
	Benzo(a)anthracene	1700	1600	ug/Kg	94				56	103	
	Chrysene	1700	1500	ug/Kg	88				58	102	
	Benzo(b)fluoranthene	1700	1900	ug/Kg	112		*		56	103	
	Benzo(k)fluoranthene	1700	820	ug/Kg	48		*		55	102	
	Benzo(a)pyrene	1700	1400	ug/Kg	82				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				50	113	
	Dibenz(a,h)anthracene	1700	1300	ug/Kg	76				52	119	
	Benzo(g,h,i)perylene	1700	1400	ug/Kg	82				56	105	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB70922BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF063911.D Lab Sample ID: PB70922BL

Instrument ID: BNA_F Date Extracted: 07/12/2013

Matrix: (soil/water) SOIL Date Analyzed: 07/13/2013

Level: (low/med) LOW Time Analyzed: 14:56

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB70922BS	PB70922BS	BF063912.D	07/13/2013
TS-C-01	E2914-03	BF063928.D	07/13/2013
CS-C-01	E2914-08	BF063929.D	07/13/2013
Z-2-S-4(9-10)MS	E2873-08MS	BF063919.D	07/13/2013
Z-2-S-4(9-10)MSD	E2873-08MSD	BF063920.D	07/13/2013

COMMENTS:

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71101BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF064099.D Lab Sample ID: PB71101BL

Instrument ID: BNA_F Date Extracted: 07/18/2013

Matrix: (soil/water) SOIL Date Analyzed: 07/19/2013

Level: (low/med) LOW Time Analyzed: 23:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB71101BS	PB71101BS	BF064100.D	07/19/2013
CS-C-02	E2914-12	BF064207.D	07/23/2013
B-11-W1-071713MS	E2979-07MS	BF064089.D	07/19/2013
B-11-W1-071713MSD	E2979-08MSD	BF064090.D	07/19/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF063907.D DFTPP Injection Date: 07/13/2013

Instrument ID: BNA_F DFTPP Injection Time: 12:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.9
68	Less than 2.0% of mass 69	0.5 (1.5) 1
69	Mass 69 relative abundance	34
70	Less than 2.0% of mass 69	0.6 (1.8) 1
127	10.0 - 80.0% of mass 198	47.3
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	22.6
365	Greater than 1% of mass 198	1.9
441	Present, but less than mass 443	11.2
442	Greater than 50% of mass 198	70.9
443	15.0 - 24.0% of mass 442	14.3 (20.1) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF063908.D	07/13/2013	13:38
PB70922BL	PB70922BL	BF063911.D	07/13/2013	14:56
PB70922BS	PB70922BS	BF063912.D	07/13/2013	15:22
Z-2-S-4(9-10)MS	E2873-08MS	BF063919.D	07/13/2013	18:25
Z-2-S-4(9-10)MSD	E2873-08MSD	BF063920.D	07/13/2013	18:51
TS-C-01	E2914-03	BF063928.D	07/13/2013	22:20
CS-C-01	E2914-08	BF063929.D	07/13/2013	22:46

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF064077.D DFTPP Injection Date: 07/19/2013

Instrument ID: BNA_F DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	35.8
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	35.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	49.7
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	11.9
442	Greater than 50% of mass 198	77.6
443	15.0 - 24.0% of mass 442	15.3 (19.7) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064078.D	07/19/2013	10:34
B-11-W1-071713MS	E2979-07MS	BF064089.D	07/19/2013	15:46
B-11-W1-071713MSD	E2979-08MSD	BF064090.D	07/19/2013	16:17

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF064095.D DFTPP Injection Date: 07/19/2013

Instrument ID: BNA_F DFTPP Injection Time: 19:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.3
68	Less than 2.0% of mass 69	0.6 (1.5) 1
69	Mass 69 relative abundance	36
70	Less than 2.0% of mass 69	0.0 (0.1) 1
127	10.0 - 80.0% of mass 198	48.5
197	Less than 2.0% of mass 198	0.9
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	21.7
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	12.4
442	Greater than 50% of mass 198	77.3
443	15.0 - 24.0% of mass 442	14.3 (18.5) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064096.D	07/19/2013	21:48
PB71101BL	PB71101BL	BF064099.D	07/19/2013	23:10
PB71101BS	PB71101BS	BF064100.D	07/19/2013	23:37

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E2914 SDG NO.: E2914

Lab File ID: BF064190.D DFTPP Injection Date: 07/22/2013

Instrument ID: BNA_F DFTPP Injection Time: 16:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.7
68	Less than 2.0% of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	38.6
70	Less than 2.0% of mass 69	0.3 (0.8) 1
127	10.0 - 80.0% of mass 198	50.6
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	23.1
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	14.1
442	Greater than 50% of mass 198	87.9
443	15.0 - 24.0% of mass 442	16.8 (19.1) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064191.D	07/22/2013	18:27
CS-C-02	E2914-12	BF064207.D	07/23/2013	01:32

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2013

Lab File ID: BF063908.D Time Analyzed: 13:38

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	289569	4.92	1221780	6.17	712468	7.89
	UPPER LIMIT	579138	5.42	2443560	6.67	1424940	8.39
	LOWER LIMIT	144785	4.42	610890	5.67	356234	7.39
	EPA SAMPLE NO.						
01	Z-2-S-4(9-10)MS	182702	4.92	843731	6.17	456521	7.89
02	Z-2-S-4(9-10)MSD	170947	4.92	814235	6.17	443692	7.89
03	TS-C-01	183117	4.92	798037	6.17	436896	7.89
04	CS-C-01	176351	4.92	776863	6.17	419427	7.89
05	PB70922BL	168090	4.92	742729	6.18	412460	7.89
06	PB70922BS	179074	4.92	838987	6.17	458092	7.89

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2013

Lab File ID: BF063908.D Time Analyzed: 13:38

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1184100	9.34	1150710	11.92	1229980	13.23
	UPPER LIMIT	2368200	9.84	2301420	12.42	2459960	13.73
	LOWER LIMIT	592050	8.84	575355	11.42	614990	12.73
	EPA SAMPLE NO.						
01	Z-2-S-4(9-10)MS	798131	9.34	802479	11.92	812916	13.23
02	Z-2-S-4(9-10)MSD	793993	9.34	794460	11.92	768995	13.23
03	TS-C-01	798480	9.34	858313	11.92	735709	13.23
04	CS-C-01	797238	9.34	845238	11.92	738963	13.23
05	PB70922BL	765789	9.34	814425	11.92	730452	13.23
06	PB70922BS	802478	9.34	788021	11.92	782294	13.23

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/19/2013

Lab File ID: BF064078.D Time Analyzed: 10:34

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	287405	4.55	1165760	5.83	654591	7.53
	UPPER LIMIT	574810	5.05	2331520	6.33	1309180	8.03
	LOWER LIMIT	143703	4.05	582880	5.33	327296	7.03
	EPA SAMPLE NO.						
01	B-11-W1-071713MS	168858	4.54	703009	5.83	395620	7.53
02	B-11-W1-071713MSD	157666	4.55	672501	5.83	368159	7.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/19/2013

Lab File ID: BF064078.D Time Analyzed: 10:34

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1126910	8.96	989881	11.52	1071550	12.8
	UPPER LIMIT	2253820	9.46	1979760	12.02	2143100	13.3
	LOWER LIMIT	563455	8.46	494941	11.02	535775	12.3
	EPA SAMPLE NO.		✓		✓		✓
01	B-11-W1-071713MS	667232	8.96	523261	11.56	671882	12.84
02	B-11-W1-071713MSD	690580	8.96	569354	11.52	640170	12.81

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/19/2013

Lab File ID: BF064096.D Time Analyzed: 21:48

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	271093	4.4	1098720	5.69	610964	7.40
	UPPER LIMIT	542186	4.9	2197440	6.19	1221930	7.9
	LOWER LIMIT	135547	3.9	549360	5.19	305482	6.9
	EPA SAMPLE NO.		✓		✓		✓
01	PB71101BL	154572	4.39	655603	5.68	372838	7.38
02	PB71101BS	157237	4.39	653429	5.69	366219	7.38

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/19/2013

Lab File ID: BF064096.D Time Analyzed: 21:48

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1111990	8.8	980827	11.36	1085670	12.63
	UPPER LIMIT	2223980	9.3	1961650	11.86	2171340	13.13
	LOWER LIMIT	555995	8.3	490414	10.86	542835	12.13
	EPA SAMPLE NO.						
01	PB71101BL	741893	8.80	738368	11.35	624794	12.62
02	PB71101BS	752920	8.80	674169	11.35	650527	12.63

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/22/2013

Lab File ID: BF064191.D Time Analyzed: 18:27

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	101478	4.29	441923	5.59	250970	7.28
	UPPER LIMIT	202956	4.79	883846	6.09	501940	7.78
	LOWER LIMIT	50739	3.79	220962	5.09	125485	6.78
	EPA SAMPLE NO.		✓		✓		✓
01	CS-C-02	120026	4.29	517120	5.59	286800	7.28

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/22/2013

Lab File ID: BF064191.D Time Analyzed: 18:27

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	472887	8.7	466588	11.24	447179	12.51
	UPPER LIMIT	945774	9.2	933176	11.74	894358	13.01
	LOWER LIMIT	236444	8.2	233294	10.74	223590	12.01
	EPA SAMPLE NO.						
01	CS-C-02	561469	8.70	565204	11.24	513709	12.51

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	11.8 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD018398.D	1	07/16/13	07/16/13	PB71022

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.374	U	0.147	0.374	1.9	ug/kg
319-85-7	beta-BHC	0.374	U	0.204	0.374	1.9	ug/kg
319-86-8	delta-BHC	0.374	U	0.113	0.374	1.9	ug/kg
58-89-9	gamma-BHC (Lindane)	0.374	U	0.17	0.374	1.9	ug/kg
76-44-8	Heptachlor	0.374	U	0.159	0.374	1.9	ug/kg
309-00-2	Aldrin	0.374	U	0.113	0.374	1.9	ug/kg
959-98-8	Endosulfan I	0.374	U	0.17	0.374	1.9	ug/kg
60-57-1	Dieldrin	0.374	U	0.147	0.374	1.9	ug/kg
72-55-9	4,4-DDE	0.374	U	0.227	0.374	1.9	ug/kg
72-20-8	Endrin	0.374	U	0.204	0.374	1.9	ug/kg
33213-65-9	Endosulfan II	0.374	U	0.159	0.374	1.9	ug/kg
72-54-8	4,4-DDD	0.374	U	0.193	0.374	1.9	ug/kg
1031-07-8	Endosulfan Sulfate	0.374	U	0.17	0.374	1.9	ug/kg
50-29-3	4,4-DDT	0.374	U	0.159	0.374	1.9	ug/kg
5103-71-9	alpha-Chlordane	0.374 U ~~0.374~~	~~U~~ R	0.159	0.374	1.9	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	17.6		10 - 169		88%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.6		31 - 151		103%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	6.7 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD018399.D	1	07/16/13	07/16/13	PB71022

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.353	U	0.139	0.353	1.8	ug/kg
319-85-7	beta-BHC	0.353	U	0.192	0.353	1.8	ug/kg
319-86-8	delta-BHC	0.353	U	0.107	0.353	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.353	U	0.16	0.353	1.8	ug/kg
76-44-8	Heptachlor	0.353	U	0.15	0.353	1.8	ug/kg
309-00-2	Aldrin	0.353	U	0.107	0.353	1.8	ug/kg
959-98-8	Endosulfan I	0.353	U	0.16	0.353	1.8	ug/kg
60-57-1	Dieldrin	0.353	U	0.139	0.353	1.8	ug/kg
72-55-9	4,4-DDE	0.353	U	0.214	0.353	1.8	ug/kg
72-20-8	Endrin	0.353	U	0.192	0.353	1.8	ug/kg
33213-65-9	Endosulfan II	0.353	U	0.15	0.353	1.8	ug/kg
72-54-8	4,4-DDD	0.353	U	0.182	0.353	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.353	U	0.16	0.353	1.8	ug/kg
50-29-3	4,4-DDT	0.353	U	0.15	0.353	1.8	ug/kg
5103-71-9	alpha-Chlordane 0.353U	~~0.353~~	~~U~~ R JAS	0.15	0.353	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	18.6		10 - 169		93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.5		31 - 151		97%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	7.4 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004413.D	1	07/18/13	07/19/13	PB71080

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.356	U	0.14	0.356	1.8	ug/kg
319-85-7	beta-BHC	0.356	U	0.194	0.356	1.8	ug/kg
319-86-8	delta-BHC	0.356	U	0.108	0.356	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.356	U	0.162	0.356	1.8	ug/kg
76-44-8	Heptachlor	0.356	U	0.151	0.356	1.8	ug/kg
309-00-2	Aldrin	0.356	U	0.108	0.356	1.8	ug/kg
959-98-8	Endosulfan I	0.356	U	0.162	0.356	1.8	ug/kg
60-57-1	Dieldrin	0.356	U	0.14	0.356	1.8	ug/kg
72-55-9	4,4-DDE	0.356	U	0.216	0.356	1.8	ug/kg
72-20-8	Endrin	0.356	U	0.194	0.356	1.8	ug/kg
33213-65-9	Endosulfan II	0.356	U	0.151	0.356	1.8	ug/kg
72-54-8	4,4-DDD	0.356	U	0.183	0.356	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.356	U	0.162	0.356	1.8	ug/kg
50-29-3	4,4-DDT	0.356	U	0.151	0.356	1.8	ug/kg
5103-71-9	alpha-Chlordane	~~0.356~~ 0.356 U	~~U~~ J	0.151	0.356	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	19.4		10 - 169		97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.9		31 - 151		95%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PD018200.D	PIBLK-PD018200.D	Decachlorobiphenyl	1	20	21.21	106		10	192
		Tetrachloro-m-xylene	1	20	20.04	100		10	172
		Decachlorobiphenyl	2	20	20.75	104		10	192
		Tetrachloro-m-xylene	2	20	20.3	102		10	172
I.BLK-PD018388.D	PIBLK-PD018388.D	Decachlorobiphenyl	1	20	20.55	103		10	192
		Tetrachloro-m-xylene	1	20	20.54	103		10	172
		Decachlorobiphenyl	2	20	21.35	107		10	192
		Tetrachloro-m-xylene	2	20	20.99	105		10	172
PB71022BL	PB71022BL	Decachlorobiphenyl	1	20	21.32	107		10	169
		Tetrachloro-m-xylene	1	20	20.53	103		31	151
		Decachlorobiphenyl	2	20	22.21	111		10	169
		Tetrachloro-m-xylene	2	20	21.94	110		31	151
PB71022BS	PB71022BS	Decachlorobiphenyl	1	20	19.67	98		10	169
		Tetrachloro-m-xylene	1	20	18.72	94		31	151
		Decachlorobiphenyl	2	20	20.43	102		10	169
		Tetrachloro-m-xylene	2	20	18.48	92		31	151
E2914-03	TS-C-01	Decachlorobiphenyl	1	20	17.64	88		10	169
		Tetrachloro-m-xylene	1	20	20.58	103		31	151
		Decachlorobiphenyl	2	20	18.19	91		10	169
		Tetrachloro-m-xylene	2	20	20.03	100		31	151
E2914-08	CS-C-01	Decachlorobiphenyl	1	20	18.57	93		10	169
		Tetrachloro-m-xylene	1	20	19.47	97		31	151
		Decachlorobiphenyl	2	20	19.19	96		10	169
		Tetrachloro-m-xylene	2	20	20.43	102		31	151
E2906-01MS	PENNINGTONMS	Decachlorobiphenyl	1	20	20.61	103		10	169
		Tetrachloro-m-xylene	1	20	21.77	109		31	151
		Decachlorobiphenyl	2	20	20.52	103		10	169
		Tetrachloro-m-xylene	2	20	19.96	100		31	151
E2906-01MSD	PENNINGTONMSD	Decachlorobiphenyl	1	20	20.29	101		10	169
		Tetrachloro-m-xylene	1	20	21.48	107		31	151
		Decachlorobiphenyl	2	20	20.5	103		10	169
		Tetrachloro-m-xylene	2	20	19.89	99		31	151
I.BLK-PD018402.D	PIBLK-PD018402.D	Decachlorobiphenyl	1	20	20.66	103		10	192
		Tetrachloro-m-xylene	1	20	20.18	101		10	172
		Decachlorobiphenyl	2	20	21.78	109		10	192
		Tetrachloro-m-xylene	2	20	21.2	106		10	172
I.BLK-PL004396.D	PIBLK-PL004396.D	Decachlorobiphenyl	1	20	20.15	101		10	192
		Tetrachloro-m-xylene	1	20	19.39	97		10	172
		Decachlorobiphenyl	2	20	18.76	94		10	192
		Tetrachloro-m-xylene	2	20	19.28	96		10	172
I.BLK-PL004409.D	PIBLK-PL004409.D	Decachlorobiphenyl	1	20	19.9	100		10	192
		Tetrachloro-m-xylene	1	20	20.06	100		10	172
		Decachlorobiphenyl	2	20	20.96	105		10	192

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Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PL004409.D	PIBLK-PL004409.D	Tetrachloro-m-xylene	2	20	20.39	102		10	172
PB71080BL	PB71080BL	Decachlorobiphenyl	1	20	20.28	101		55	130
		Tetrachloro-m-xylene	1	20	19.75	99		70	125
		Decachlorobiphenyl	2	20	20.59	103		55	130
		Tetrachloro-m-xylene	2	20	21.12	106		70	125
PB71080BS	PB71080BS	Decachlorobiphenyl	1	20	19.12	96		55	130
		Tetrachloro-m-xylene	1	20	18.25	91		70	125
		Decachlorobiphenyl	2	20	19.53	98		55	130
		Tetrachloro-m-xylene	2	20	19.5	98		70	125
E2914-12	CS-C-02	Decachlorobiphenyl	1	20	19.39	97		10	169
		Tetrachloro-m-xylene	1	20	18.9	95		31	151
		Decachlorobiphenyl	2	20	20.1	101		10	169
		Tetrachloro-m-xylene	2	20	19.92	100		31	151
E2960-02MS	ECM-CF-C3MS	Decachlorobiphenyl	1	20	19.01	95		55	130
		Tetrachloro-m-xylene	1	20	21.81	109		70	125
		Decachlorobiphenyl	2	20	19.99	100		55	130
		Tetrachloro-m-xylene	2	20	21.72	109		70	125
2960-03MSD	ECM-CF-C3MSD	Decachlorobiphenyl	1	20	18.75	94		55	130
		Tetrachloro-m-xylene	1	20	21.77	109		70	125
		Decachlorobiphenyl	2	20	19.64	98		55	130
		Tetrachloro-m-xylene	2	20	21.08	105		70	125
I.BLK-PL004420.D	PIBLK-PL004420.D	Decachlorobiphenyl	1	20	20.26	101		10	192
		Tetrachloro-m-xylene	1	20	19.61	98		10	172
		Decachlorobiphenyl	2	20	21.12	106		10	192
		Tetrachloro-m-xylene	2	20	21.35	107		10	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PD018400.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**PENNINGTONMS**											
E2906-01MS	alpha-BHC	18.2	0	18.1	ug/kg	99				16	147	
	beta-BHC	18.2	0	16.1	ug/kg	88				25	146	
	delta-BHC	18.2	0	10.1	ug/kg	55				11	146	
	gamma-BHC (Lindane)	18.2	0	18.1	ug/kg	99				~~21~~ 46	~~147~~ 127	
	Heptachlor	18.2	0	18.2	ug/kg	100				~~23~~ 35	~~143~~ 130	
	Aldrin	18.2	0	18.8	ug/kg	103				~~11~~ 34	~~152~~ 132	
	Endosulfan I	18.2	0	15.5	ug/kg	85				10	164	
	Dieldrin	18.2	0	19.2	ug/kg	105				~~10~~ 31	~~162~~ 134	
	4,4-DDE	18.2	0	19.3	ug/kg	106				10	174	
	Endrin	18.2	0	17.9	ug/kg	98				~~10~~ 42	~~171~~ 139	
	Endosulfan II	18.2	0	13.7	ug/kg	75				11	146	
	4,4-DDD	18.2	0	18.1	ug/kg	99				10	150	
	Endosulfan sulfate	18.2	0	10.3	ug/kg	57				10	152	
	4,4-DDT	18.2	0	19	ug/kg	104				~~10~~ 23	~~192~~ 134	
	alpha-Chlordane	18.2	0	18.6	ug/kg	102				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PD018401.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**PENNINGTONMSD**											
E2906-01MSD	alpha-BHC	18.2	0	17.9	ug/kg	98		1		16	147	20
	beta-BHC	18.2	0	16.1	ug/kg	88		0		25	146	20
	delta-BHC	18.2	0	10.2	ug/kg	56		2		11	146	20
	gamma-BHC (Lindane)	18.2	0	18.1	ug/kg	99		0		21	147	20
	Heptachlor	18.2	0	18	ug/kg	99		1		23	143	20
	Aldrin	18.2	0	18.7	ug/kg	103		0		11	152	20
	Endosulfan I	18.2	0	15.4	ug/kg	85		0		10	164	20
	Dieldrin	18.2	0	19.2	ug/kg	105		0		10	162	20
	4,4-DDE	18.2	0	19.1	ug/kg	105		1		10	174	20
	Endrin	18.2	0	17.5	ug/kg	96		2		10	171	20
	Endosulfan II	18.2	0	13.6	ug/kg	75		0		11	146	20
	4,4-DDD	18.2	0	17.9	ug/kg	98		1		10	150	20
	Endosulfan sulfate	18.2	0	10.3	ug/kg	57		0		10	152	20
	4,4-DDT	18.2	0	18.8	ug/kg	103		1		10	192	20
	alpha-Chlordane	18.2	0	18.4	ug/kg	101		1		10	157	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004417.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**ECM-CF-C3MS**											
E2960-02MS	alpha-BHC	17.2	0	17.6	ug/kg	102				60	125	
	beta-BHC	17.2	0	18.7	ug/kg	109				60	125	
	delta-BHC	17.2	0	13.3	ug/kg	77				55	130	
	gamma-BHC (Lindane)	17.2	0	18.2	ug/kg	106				60	125	
	Heptachlor	17.2	0	18.9	ug/kg	110				50	140	
	Aldrin	17.2	0	18.7	ug/kg	109				45	140	
	Endosulfan I	17.2	0	18	ug/kg	105				15	135	
	Dieldrin	17.2	0	18.8	ug/kg	109				65	125	
	4,4-DDE	17.2	0	19	ug/kg	110				70	125	
	Endrin	17.2	0	19.2	ug/kg	112				60	135	
	Endosulfan II	17.2	0	17.9	ug/kg	104				35	140	
	4,4-DDD	17.2	0	18.7	ug/kg	109				30	135	
	Endosulfan sulfate	17.2	0	16.6	ug/kg	97				60	135	
	4,4-DDT	17.2	0	19.2	ug/kg	112				45	140	
	alpha-Chlordane	17.2	0	18.6	ug/kg	108				65	120	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004418.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**ECM-CF-C3MSD**											
E2960-03MSD	alpha-BHC	17.2	0	17.2	ug/kg	100		2		60	125	20
	beta-BHC	17.2	0	18.4	ug/kg	107		2		60	125	20
	delta-BHC	17.2	0	13.2	ug/kg	77		0		55	130	20
	gamma-BHC (Lindane)	17.2	0	17.9	ug/kg	104		2		60	125	20
	Heptachlor	17.2	0	18.6	ug/kg	108		2		50	140	20
	Aldrin	17.2	0	18.3	ug/kg	106		3		45	140	20
	Endosulfan I	17.2	0	17.7	ug/kg	103		2		15	135	20
	Dieldrin	17.2	0	18.7	ug/kg	109		0		65	125	20
	4,4-DDE	17.2	0	18.8	ug/kg	109		1		70	125	20
	Endrin	17.2	0	19.6	ug/kg	114		2		60	135	20
	Endosulfan II	17.2	0	17.8	ug/kg	103		1		35	140	20
	4,4-DDD	17.2	0	18.4	ug/kg	107		2		30	135	20
	Endosulfan sulfate	17.2	0	16.3	ug/kg	95		2		60	135	20
	4,4-DDT	17.2	0	19.1	ug/kg	111		1		45	140	20
	alpha-Chlordane	17.2	0	18.3	ug/kg	106		2		65	120	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PD018395.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71022BS	alpha-BHC	16.7	16.3	ug/kg	98				84	123	
	beta-BHC	16.7	15.5	ug/kg	93				82	123	
	delta-BHC	16.7	16.6	ug/kg	99				83	126	
	gamma-BHC (Lindane)	16.7	16.1	ug/kg	96				~~83~~ 50	~~125~~ 120	
	Heptachlor	16.7	15.8	ug/kg	95				83	122	
	Aldrin	16.7	15.9	ug/kg	95				82	124	
	Endosulfan I	16.7	16	ug/kg	96				81	124	
	Dieldrin	16.7	16.1	ug/kg	96				~~85~~ 30	~~121~~ 130	
	4,4-DDE	16.7	15.9	ug/kg	95				~~81~~ 50	~~123~~ 150	
	Endrin	16.7	16.5	ug/kg	99				~~76~~ 50	~~130~~ 120	
	Endosulfan II	16.7	16.2	ug/kg	97				80	125	
	4,4-DDD	16.7	16.4	ug/kg	98				80	131	
	Endosulfan sulfate	16.7	17.1	ug/kg	102				~~81~~ 50	~~122~~ 120	
	4,4-DDT	16.7	16.6	ug/kg	99				70	129	
	alpha-Chlordane	16.7	15.8	ug/kg	95				84	120	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PL004412.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71080BS	alpha-BHC	16.7	16.1	ug/kg	96				60	125	
	beta-BHC	16.7	15.9	ug/kg	95				60	125	
	delta-BHC	16.7	16.6	ug/kg	99				55	130	
	gamma-BHC (Lindane)	16.7	16.3	ug/kg	98				60	125	
	Heptachlor	16.7	16.3	ug/kg	98				50	140	
	Aldrin	16.7	16.2	ug/kg	97				45	140	
	Endosulfan I	16.7	15.9	ug/kg	95				15	135	
	Dieldrin	16.7	15.9	ug/kg	95				65	125	
	4,4-DDE	16.7	15.9	ug/kg	95				70	125	
	Endrin	16.7	17.1	ug/kg	102				60	135	
	Endosulfan II	16.7	15.8	ug/kg	95				35	140	
	4,4-DDD	16.7	16.1	ug/kg	96				30	135	
	Endosulfan sulfate	16.7	16.4	ug/kg	98				60	135	
	4,4-DDT	16.7	16.3	ug/kg	98				45	140	
	alpha-Chlordane	16.7	15.8	ug/kg	95				65	120	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71022BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB71022BL Lab File ID: PD018394.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/16/2013

Date Analyzed (1): 07/16/2013 Date Analyzed (2): 07/16/2013

Time Analyzed (1): 13:53 Time Analyzed (2): 13:53

Instrument ID (1): ECD_D Instrument ID (2): ECD_D

GC Column (1): ZB-MR2 ID: 0.32 (mm) GC Column (2): ZB-MR1 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71022BS	PB71022BS	PD018395.D	07/16/2013	07/16/2013
TS-C-01	E2914-03	PD018398.D	07/16/2013	07/16/2013
CS-C-01	E2914-08	PD018399.D	07/16/2013	07/16/2013
PENNINGTONMS	E2906-01MS	PD018400.D	07/16/2013	07/16/2013
PENNINGTONMSD	E2906-01MSD	PD018401.D	07/16/2013	07/16/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71080BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB71080BL Lab File ID: PL004411.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/18/2013

Date Analyzed (1): 07/19/2013 Date Analyzed (2): 07/19/2013

Time Analyzed (1): 15:53 Time Analyzed (2): 15:53

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71080BS	PB71080BS	PL004412.D	07/19/2013	07/19/2013
CS-C-02	E2914-12	PL004413.D	07/19/2013	07/19/2013
ECM-CF-C3MS	E2960-02MS	PL004417.D	07/19/2013	07/19/2013
ECM-CF-C3MSD	E2960-03MSD	PL004418.D	07/19/2013	07/19/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC		Date Collected:	07/11/13	
Project:	Catlin NY		Date Received:	07/12/13	
Client Sample ID:	TS-C-01		SDG No.:	E2914	
Lab Sample ID:	E2914-03		Matrix:	SOIL	
Analytical Method:	SW8082A		% Moisture:	11.8	Decanted:
Sample Wt/Vol:	30.06	Units: g	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC014337.D	1	07/13/13	07/15/13	PB70950

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.8	U	3.8	3.8	19.2	ug/kg
11104-28-2	Aroclor-1221	3.8	U	3.8	3.8	19.2	ug/kg
11141-16-5	Aroclor-1232	3.8	U	3.8	3.8	19.2	ug/kg
53469-21-9	Aroclor-1242	3.8	U	3.8	3.8	19.2	ug/kg
12672-29-6	Aroclor-1248	3.8	U	3.8	3.8	19.2	ug/kg
11097-69-1	Aroclor-1254	3.8	U	1.7	3.8	19.2	ug/kg
11096-82-5	Aroclor-1260	3.8	U	3.8	3.8	19.2	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	17.8		10 - 166		89%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.4		60 - 125		87%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC		Date Collected:	07/11/13	
Project:	Catlin NY		Date Received:	07/12/13	
Client Sample ID:	CS-C-01		SDG No.:	E2914	
Lab Sample ID:	E2914-08		Matrix:	SOIL	
Analytical Method:	SW8082A		% Moisture:	6.7	Decanted:
Sample Wt/Vol:	30.04	Units: g	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC014338.D	1	07/13/13	07/15/13	PB70950

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.6	U	3.6	3.6	18.2	ug/kg
11104-28-2	Aroclor-1221	3.6	U	3.6	3.6	18.2	ug/kg
11141-16-5	Aroclor-1232	3.6	U	3.6	3.6	18.2	ug/kg
53469-21-9	Aroclor-1242	3.6	U	3.6	3.6	18.2	ug/kg
12672-29-6	Aroclor-1248	3.6	U	3.6	3.6	18.2	ug/kg
11097-69-1	Aroclor-1254	3.6	U	1.6	3.6	18.2	ug/kg
11096-82-5	Aroclor-1260	3.6	U	3.6	3.6	18.2	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.2		10 - 166		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.1		60 - 125		106%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC		Date Collected:	07/11/13	
Project:	Catlin NY		Date Received:	07/12/13	
Client Sample ID:	CS-C-02		SDG No.:	E2914	
Lab Sample ID:	E2914-12		Matrix:	SOIL	
Analytical Method:	SW8082A		% Moisture:	7.4	Decanted:
Sample Wt/Vol:	30.03	Units: g	Final Vol:	10000	ul.
Soil Aliquot Vol:		ul.	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PB006979.D	1	07/18/13	07/22/13	PB71079

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.6	U	3.6	3.6	18.3	ug/kg
11104-28-2	Aroclor-1221	3.6	U	3.6	3.6	18.3	ug/kg
11141-16-5	Aroclor-1232	3.6	U	3.6	3.6	18.3	ug/kg
53469-21-9	Aroclor-1242	3.6	U	3.6	3.6	18.3	ug/kg
12672-29-6	Aroclor-1248	3.6	U	3.6	3.6	18.3	ug/kg
11097-69-1	Aroclor-1254	3.6	U	1.6	3.6	18.3	ug/kg
11096-82-5	Aroclor-1260	3.6	U	3.6	3.6	18.3	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	24.9		10 - 166		125%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		60 - 125		108%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
LBLK-PB006757.D	PIBLK-PB006757.D	Tetrachloro-m-xylene	1	20	22.31	112		35	137
		Decachlorobiphenyl	1	20	22.16	111		40	135
		Tetrachloro-m-xylene	2	20	21.77	109		35	137
		Decachlorobiphenyl	2	20	21.43	107		40	135
LBLK-PB006976.D	PIBLK-PB006976.D	Tetrachloro-m-xylene	1	20	26.4	132		35	137
		Decachlorobiphenyl	1	20	23.32	117		40	135
		Tetrachloro-m-xylene	2	20	19.25	96		35	137
		Decachlorobiphenyl	2	20	23.09	115		40	135
E2914-12	CS-C-02	Tetrachloro-m-xylene	1	20	24.94	125		10	166
		Decachlorobiphenyl	1	20	21.56	108		60	125
		Tetrachloro-m-xylene	2	20	18.59	93		10	166
		Decachlorobiphenyl	2	20	22.82	114		60	125
E2960-02MS	ECM-CF-C3MS	Tetrachloro-m-xylene	1	20	27.1	136		10	166
		Decachlorobiphenyl	1	20	23.29	116		60	125
		Tetrachloro-m-xylene	2	20	21.14	106		10	166
		Decachlorobiphenyl	2	20	24.44	122		60	125
E2960-03MSD	ECM-CF-C3MSD	Tetrachloro-m-xylene	1	20	22.11	111		10	166
		Decachlorobiphenyl	1	20	19.61	98		60	125
		Tetrachloro-m-xylene	2	20	15.99	80		10	166
		Decachlorobiphenyl	2	20	19.35	97		60	125
LBLK-PB006989.D	PIBLK-PB006989.D	Tetrachloro-m-xylene	1	20	25.32	127		35	137
		Decachlorobiphenyl	1	20	23.27	116		40	135
		Tetrachloro-m-xylene	2	20	19.95	100		35	137
		Decachlorobiphenyl	2	20	23.89	119		40	135
LBLK-PC014221.D	PIBLK-PC014221.D	Tetrachloro-m-xylene	1	20	21.4	107		35	137
		Decachlorobiphenyl	1	20	23	115		40	135
		Tetrachloro-m-xylene	2	20	22.88	114		35	137
		Decachlorobiphenyl	2	20	23.41	117		40	135
LBLK-PC014330.D	PIBLK-PC014330.D	Tetrachloro-m-xylene	1	20	23.11	116		35	137
		Decachlorobiphenyl	1	20	23.86	119		40	135
		Tetrachloro-m-xylene	2	20	22.91	115		35	137
		Decachlorobiphenyl	2	20	23.16	116		40	135
PB70950BL	PB70950BL	Tetrachloro-m-xylene	1	20	19.39	97		10	166
		Decachlorobiphenyl	1	20	19.04	95		60	125
		Tetrachloro-m-xylene	2	20	18.43	92		10	166
		Decachlorobiphenyl	2	20	19.75	99		60	125
PB70950BS	PB70950BS	Tetrachloro-m-xylene	1	20	20.28	101		10	166
		Decachlorobiphenyl	1	20	21.93	110		60	125
		Tetrachloro-m-xylene	2	20	20.01	100		10	166
		Decachlorobiphenyl	2	20	21.63	108		60	125
E2853-10MS	8CMS	Tetrachloro-m-xylene	1	20	22.19	111		10	166
		Decachlorobiphenyl	1	20	20.13	101		60	125
		Tetrachloro-m-xylene	2	20	22.65	113		10	166

Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
E2853-10MS	8CMS	Decachlorobiphenyl	2	20	20.02	100		60	125
E2853-10MSD	8CMSD	Tetrachloro-m-xylene	1	20	21.38	107		10	166
		Decachlorobiphenyl	1	20	19.54	98		60	125
		Tetrachloro-m-xylene	2	20	21.77	109		10	166
		Decachlorobiphenyl	2	20	19.31	97		60	125
E2914-03	TS-C-01	Tetrachloro-m-xylene	1	20	17.82	89		10	166
		Decachlorobiphenyl	1	20	17.36	87		60	125
		Tetrachloro-m-xylene	2	20	18.94	95		10	166
		Decachlorobiphenyl	2	20	17.25	86		60	125
E2914-08	CS-C-01	Tetrachloro-m-xylene	1	20	21.19	106		10	166
		Decachlorobiphenyl	1	20	21.13	106		60	125
		Tetrachloro-m-xylene	2	20	21.75	109		10	166
		Decachlorobiphenyl	2	20	20.95	105		60	125
I.BLK-PC014339.D	PIBLK-PC014339.D	Tetrachloro-m-xylene	1	20	23.27	116		35	137
		Decachlorobiphenyl	1	20	24.67	123		40	135
		Tetrachloro-m-xylene	2	20	23.57	118		35	137
		Decachlorobiphenyl	2	20	24.29	121		40	135
BLK-PO009780.D	PIBLK-PO009780.D	Tetrachloro-m-xylene	1	20	19.49	97		35	137
		Decachlorobiphenyl	1	20	20.49	102		40	135
		Tetrachloro-m-xylene	2	20	20.24	101		35	137
		Decachlorobiphenyl	2	20	20.06	100		40	135
I.BLK-PO009847.D	PIBLK-PO009847.D	Tetrachloro-m-xylene	1	20	25.89	129		35	137
		Decachlorobiphenyl	1	20	19.75	99		40	135
		Tetrachloro-m-xylene	2	20	24.89	124		35	137
		Decachlorobiphenyl	2	20	20.25	101		40	135
PB71079BL	PB71079BL	Tetrachloro-m-xylene	1	20	21.41	107		10	166
		Decachlorobiphenyl	1	20	18.1	91		60	125
		Tetrachloro-m-xylene	2	20	21.76	109		10	166
		Decachlorobiphenyl	2	20	18.83	94		60	125
PB71079BS	PB71079BS	Tetrachloro-m-xylene	1	20	22.08	110		10	166
		Decachlorobiphenyl	1	20	18.54	93		60	125
		Tetrachloro-m-xylene	2	20	22.15	111		10	166
		Decachlorobiphenyl	2	20	19.33	97		60	125
I.BLK-PO009856.D	PIBLK-PO009856.D	Tetrachloro-m-xylene	1	20	25.42	127		35	137
		Decachlorobiphenyl	1	20	19.87	99		40	135
		Tetrachloro-m-xylene	2	20	24.68	123		35	137
		Decachlorobiphenyl	2	20	20.84	104		40	135

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PB006983.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**ECM-CF-C3MS**											
E2960-02MS	AR1016	68.8	0	92.2	ug/kg	134				40	140	
	AR1260	68.8	0	81.9	ug/kg	119				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PB006984.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**ECM-CF-C3MSD**											
E2960-03MSD	AR1016	68.7	0	76.6	ug/kg	111		19		40	140	20
	AR1260	68.7	0	69	ug/kg	100		17		60	130	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014334.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**8CMS**											
E2853-10MS	AR1016	74.6	0	84.3	ug/kg	113				40	140	
	AR1260	74.6	0	82.2	ug/kg	110				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014335.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**8CMSD**											
E2853-10MSD	AR1016	74.5	0	81	ug/kg	109		4		40	140	20
	AR1260	74.5	0	78.2	ug/kg	105		5		60	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PC014333.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB70950BS	AR1016	66.6	66.6	ug/kg	100				53	140	
	AR1260	66.6	66.9	ug/kg	100				65	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PO009852.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71079BS	AR1016	66.6	77.3	ug/kg	116				53	140	
	AR1260	66.6	66.3	ug/kg	100				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB70950BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB70950BL Lab File ID: PC014332.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/13/2013

Date Analyzed (1): 07/15/2013 Date Analyzed (2): 07/15/2013

Time Analyzed (1): 16:55 Time Analyzed (2): 16:55

Instrument ID (1): ECD_C Instrument ID (2): ECD_C

GC Column (1): RTX-CLPest ID: 0.32 (mm) GC Column (2): RTX-CLPestII ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB70950BS	PB70950BS	PC014333.D	07/15/2013	07/15/2013
8CMS	E2853-10MS	PC014334.D	07/15/2013	07/15/2013
8CMSD	E2853-10MSD	PC014335.D	07/15/2013	07/15/2013
TS-C-01	E2914-03	PC014337.D	07/15/2013	07/15/2013
CS-C-01	E2914-08	PC014338.D	07/15/2013	07/15/2013

COMMENTS:

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71079BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB71079BL Lab File ID: PO009851.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/18/2013

Date Analyzed (1): 07/19/2013 Date Analyzed (2): 07/19/2013

Time Analyzed (1): 16:04 Time Analyzed (2): 16:04

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CS-C-02	E2914-12	PB006979.D	07/22/2013	07/22/2013
ECM-CF-C3MS	E2960-02MS	PB006983.D	07/22/2013	07/22/2013
ECM-CF-C3MSD	E2960-03MSD	PB006984.D	07/22/2013	07/22/2013
PB71079BS	PB71079BS	PO009852.D	07/19/2013	07/19/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	TS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-03	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	11.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE006946.D	1	07/15/13	07/16/13	PB70985

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	18.9	U	12.4	18.9	75.9	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	303		12 - 189		61%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-01	SDG No.:	E2914
Lab Sample ID:	E2914-08	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	6.7 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group I
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE006949.D	1	07/15/13	07/16/13	PB70985

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.8	U	11.7	17.8	71.6	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	265		12 - 189		53%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/11/13
Project:	Catlin NY	Date Received:	07/12/13
Client Sample ID:	CS-C-02	SDG No.:	E2914
Lab Sample ID:	E2914-12	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	7.4 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007017.D	1	07/18/13	07/20/13	PB71082

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	18	U	11.8	18	72.3	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	349		12 - 189		70%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PE006895.D	PIBLK-PE006895.D	2,4-DCAA	1	500	515.92	103		43	172
		2,4-DCAA	2	500	513.45	103		43	172
I.BLK-PE006942.D	PIBLK-PE006942.D	2,4-DCAA	1	500	465.02	93		43	172
		2,4-DCAA	2	500	452.91	91		43	172
PB70985BL	PB70985BL	2,4-DCAA	1	500	316.54	63		12	189
		2,4-DCAA	2	500	344.7	69		12	189
E2914-03	TS-C-01	2,4-DCAA	1	500	303.17	61		12	189
		2,4-DCAA	2	500	321.52	64		12	189
E2914-03MS	TS-C-01MS	2,4-DCAA	1	500	271.93	54		12	189
		2,4-DCAA	2	500	280.59	56		12	189
E2914-03MSD	TS-C-01MSD	2,4-DCAA	1	500	280.07	56		12	189
		2,4-DCAA	2	500	286.62	57		12	189
E2914-08	CS-C-01	2,4-DCAA	1	500	265.51	53		12	189
		2,4-DCAA	2	500	261.87	52		12	189
I.BLK-PE006954.D	PIBLK-PE006954.D	2,4-DCAA	1	500	456.2	91		43	172
		2,4-DCAA	2	500	483.28	97		43	172
I.BLK-PE006969.D	PIBLK-PE006969.D	2,4-DCAA	1	500	477.63	96		43	172
		2,4-DCAA	2	500	498.51	100		43	172
PB70985BS	PB70985BS	2,4-DCAA	1	500	489.1	98		12	189
		2,4-DCAA	2	500	489.9	98		12	189
I.BLK-PE006973.D	PIBLK-PE006973.D	2,4-DCAA	1	500	469.11	94		43	172
		2,4-DCAA	2	500	515.23	103		43	172
I.BLK-PE007004.D	PIBLK-PE007004.D	2,4-DCAA	1	500	530.06	106		43	172
		2,4-DCAA	2	500	533.53	107		43	172
I.BLK-PE007011.D	PIBLK-PE007011.D	2,4-DCAA	1	500	485.18	97		43	172
		2,4-DCAA	2	500	528.1	106		43	172
E2960-02MS	ECM-CF-C3MS	2,4-DCAA	1	500	318.33	64		12	189
		2,4-DCAA	2	500	356.18	71		12	189
E2960-03MSD	ECM-CF-C3MSD	2,4-DCAA	1	500	349.01	70		12	189
		2,4-DCAA	2	500	351.27	70		12	189
E2914-12	CS-C-02	2,4-DCAA	1	500	349.99	70		12	189
		2,4-DCAA	2	500	344.88	69		12	189
PB71082BL	PB71082BL	2,4-DCAA	1	500	417.43	83		12	189
		2,4-DCAA	2	500	421.96	84		12	189
PB71082BS	PB71082BS	2,4-DCAA	1	500	526.84	105		12	189
		2,4-DCAA	2	500	513.66	103		12	189
I.BLK-PE007025.D	PIBLK-PE007025.D	2,4-DCAA	1	500	547.17	109		43	172
		2,4-DCAA	2	500	562.19	112		43	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE006947.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**TS-C-01MS**											
E2914-03MS	2,4,5-TP(Silvex)	190	0	88.8	ug/Kg	47	✓			13	154	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE006948.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**TS-C-01MSD**											
E2914-03MSD	2,4,5-TP(Silvex)	190	0	85.9	ug/Kg	45		4		13	154	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007014.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**ECM-CF-C3MS**											
E2960-02MS	2,4,5-TP(Silvex)	170	0	86.1	ug/Kg	51				13	154	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007015.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**ECM-CF-C3MSD**											
E2960-03MSD	2,4,5-TP(Silvex)	170	0	96.6	ug/Kg	57		11		13	154	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE006972.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB70985BS	2,4,5-TP(Silvex)	170	160	ug/Kg	94				63	134	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E2914

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE007022.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71082BS	2,4,5-TP(Silvex)	170	170	ug/Kg	100				63	134	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB70985BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB70985BL Lab File ID: PE006944.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/15/2013

Date Analyzed (1): 07/16/2013 Date Analyzed (2): 07/16/2013

Time Analyzed (1): 18:34 Time Analyzed (2): 18:34

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
TS-C-01	E2914-03	PE006946.D	07/16/2013	07/16/2013
TS-C-01MS	E2914-03MS	PE006947.D	07/16/2013	07/16/2013
TS-C-01MSD	E2914-03MSD	PE006948.D	07/16/2013	07/16/2013
CS-C-01	E2914-08	PE006949.D	07/16/2013	07/16/2013
PB70985BS	PB70985BS	PE006972.D	07/18/2013	07/18/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71082BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E2914 SAS No.: E2914 SDG NO.: E2914

Lab Sample ID: PB71082BL Lab File ID: PE007021.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/18/2013

Date Analyzed (1): 07/20/2013 Date Analyzed (2): 07/20/2013

Time Analyzed (1): 21:32 Time Analyzed (2): 21:32

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
ECM-CF-C3MS	E2960-02MS	PE007014.D	07/20/2013	07/20/2013
ECM-CF-C3MSD	E2960-03MSD	PE007015.D	07/20/2013	07/20/2013
CS-C-02	E2914-12	PE007017.D	07/20/2013	07/20/2013
PB71082BS	PB71082BS	PE007022.D	07/20/2013	07/20/2013

COMMENTS:

DATA USABILITY SUMMARY REPORT

CBS TOWNLEY HILL SITE

SAMPLED 7/30/13 and 8/5/13

VOLATILES, SEMIVOLATILES. PESTICIDES
PCB, HERBICIDES, METALS
WET CHEMISTRY

Prepared for:

VIASANT, LLC.
606 E. Baltimore Pike, Floor 3
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

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DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE
Borrow Soil Confirmation
SDG: E3133
Sampled 7/30/2013 and 8/5/2013

CS-D-08	(E3133-01)	CS-D-09	(E3133-02)
CS-D-10	(E3133-03)	CS-D-11	(E3133-04)
CS-D-12	(E3133-05)	CS-D-13	(E3133-06)
CS-D-14	(E3133-07)	CS-D-14X	(E3133-08)
TB-002	(E3133-09)	CS-C-03	(E3133-10)
CS-C-04	(E3133-11)	CS-C-05	(E3133-12)
CS-C-05X	(E3133-13)	TS-D-02	(E3133-14)
TS-D-03	(E3133-15)	TS-D-04	(E3133-16)
TS-D-05	(E3133-17)	TS-D-06	(E3133-18)
TS-D-07	(E3133-19)	TS-D-08	(E3133-20)
TS-D-08X	(E3133-21)	TS-C-02	(E3133-22)
TS-C-02X	(E3133-23)	CS-D-15	(E3133-24)
CS-C-06	(E3133-27)	TS-D-09	(E3133-30)
TB-003	(E3133-33)		

DATA ASSESSMENT

An ASP data package containing analytical results for twenty-five soil samples and two trip blanks was received from VIASANT, LLC on 06Sep13. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the CBS Townley Hill Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of volatile organics, semivolatile organics, pesticides, PCB, herbicides, metals, cyanide, hexavalent chromium and trivalent chromium. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-24, Rev. #2, August 2008, Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B; SOP HW-22, Rev.#4, August 2008, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D; SOP HW-45, Rev.#1, October 2006, Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A, SOP HW-44 Rev.#1, October 2006, Validating Pesticide Compounds by Gas Chromatography SW-846 Method 8081B; and SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) were used as technical references.

The acetone concentration reported from CS-D-14X and the methylene chloride result from TS-D-09 have been qualified as estimations because they may represent laboratory artifacts.

The 1,4-dioxane results from this project have been qualified as estimations due to poor calibration performance.

The acetone concentration from CS-D-14X has been qualified as an estimation due to poor agreement between field split duplicate samples.

The Endosulfan Sulfate, 2,4,5-TP, chromium and copper results from CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06, and the methylene chloride result from TS-D-09 have been qualified as estimations due to poor matrix spike recoveries.

The barium, chromium, copper, manganese and zinc results from CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 have been qualified as estimations due to poor serial dilution performance.

The trivalent chromium results reported from this project reflect the qualifications of the total chromium results.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "UJ" and "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 11 Sep 13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Samples must remain chilled to 4°C between the time of collection and the time of analysis. Soil samples must be analyzed for volatile organics and cyanide within 12 days. Extractions for semivolatile organics, pesticides, PCB and herbicides must be performed within 5 days. Sample extracts must be analyzed within 40 days. Metals samples must be analyzed within 180 days, mercury within 26 days.

This sample delivery group contained twenty-five soil samples that were collected from the CBS Townley Hill Site on 30Jul13 and 05Aug13. Twenty-two samples were collected on 30Jul13. The remaining three samples, CS-D-15, CS-C-06 and TS-D-09, were collected on 05Aug13. Both groups of samples were packaged with a trip blank and shipped to the laboratory, via FedEx, on the day of collection. The shipments arrived intact and packed with ice the next morning. Cooler temperatures of 6°C and 5°C were recorded in the laboratory at the time of receipt.

It is noted that there was no documentation to indicate that custody seals were present and intact on the sample coolers.

Laboratory data was complete and well organized. Each analysis was completed within the ASP holding time limitations, and was supported by the raw data. A detailed discussion of the review process follows.

VOLATILE ORGANICS

Every program sample except CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 was analyzed for volatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Six method blanks and two trip blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

Although not found in blanks, 110 µg/kg of acetone was detected in CS-D-14X and 7.1 µg/kg of methylene chloride was detected in TS-D-09. These concentrations have been qualified as estimations because low levels of acetone and methylene chloride frequently represent laboratory artifacts. It is noted that acetone was not found in CS-D-14, a field duplicate of CS-D-14X. Acetone and methylene chloride could not be removed from the sample reports because they were not present in the associated blanks.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. Each of these checks satisfied the ASP acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 31Jul13, 01Aug13, 04Aug13 and 06Aug13. Standards of 5, 10, 20, 50, 100 and 150 µg/l were included in the calibrations on 01Aug13 and 06Aug13. The 31Jul13 calibration included standards of 5, 20, 50, 100, 150 and 200 µg/l. Standards of 1, 5, 20, 50, 100 and 200 µg/l were included on 04Aug13. The calibrations on 01Aug13 and 06Aug13 also incorporated a heated purge. With the exception of 1,4-dioxane, each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during each calibration. 1,4-Dioxane standards, however, failed to produce the required minimum levels of instrument response. The 1,4-dioxane results from this group of samples have been qualified as estimations based on this performance.

Continuing calibration checks were performed on 01Aug13, 02Aug13, 06Aug13 and 07Aug13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability. It is noted that the response of 1,4-dioxane was again low during each calibration check.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, an incorrect acceptance criteria was applied. When compared to the ASP requirements, unacceptable recoveries were reported for the 4-bromofluorobenzene addition to one method blank (81%), and the 1,2-dichloroethane-d4 addition to CS-D-15MSD (130%). This performance had no impact on reported data. The remaining surrogate additions to this group of samples were recovered successfully.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, an acceptable response was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

CS-D-15 and TS-D-09 were selected for matrix spiking. The entire list of analytes targeted by this program was added to two

portions of both samples. Although the additions required by ASP protocol were recovered successfully, the methyl tert-butyl ether (135%) and methylene chloride (144%) recoveries from CS-D-09MSD exceeded the laboratories range of acceptance. The high recovery reported for methyl tert-butyl ether warrants no concern. Methyl tert-butyl ether was not detected in this group of samples. The methylene chloride concentration reported from TS-D-09 has been qualified as an estimation.

The additions to CS-D-15 and TS-D-09 demonstrated poor precision in measurements of acetone (24%RPD), 2-butanone (22%,22%RPD) and 1,4-dioxane (36%,22%RPD). Data has not been qualified due to this performance because each of the individual recoveries fell within the laboratory's range of acceptance.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates of CS-D-14 and TS-D-08 were included in this delivery group. With the exception of the acetone concentration found in CS-D-14X each pair of duplicate samples produced negative results. The acetone concentration from CS-D-14X has been previously identified as a laboratory artifact. An acceptable level of measurement precision was demonstrated.

SEMIVOLATILE ORGANICS

CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 were analyzed for semivolatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks were analyzed with this group of samples. Both of these blanks demonstrated acceptable chromatography and were free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 31Jul13 and 12Aug13. Standards of 10, 25, 40, 50, 60 and 80 ng were included. Each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations.

Calibration verifications were performed on 01Aug13, 04Aug13 and 13Aug13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability.

One exception is noted. An unacceptable shift in the response of benzo[b]fluoranthene (34.2%) was observed on 13Aug13. This performance was not associated with the analysis of samples from this program. Data qualifications are not required.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, the laboratory evaluated surrogate performance based on its own acceptance criteria. When compared to the ASP requirements, an

unacceptably high recovery was reported for the 2-fluorobiphenyl (134%) to one spiked blank. This performance had no impact on reported data. The remaining surrogate additions were recovered successfully.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of 2. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these requirements, acceptable performance was observed for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

TS-C-02X and CS-C-06 were selected for matrix spiking. The entire list of analytes targeted by this program was added to two portions of both samples. Although the recoveries reported for these spikes satisfied both the ASP and the laboratory's acceptance criteria, the measurements of chrysene (21%RPD) from TS-C-02X and pentachlorophenol (28%RPD) from CS-C-06 demonstrated poor measurement precision. Data has not been qualified due to this performance because each of the individual measurements fell within the laboratory's range of acceptance.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. The recoveries reported for these spikes included one elevated fluorene result of 106%. This performance does not warrant data qualifications.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measure-

ment of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates of CS-C-05 and TS-C-02 and were included in this delivery group. Both pairs of duplicate samples produced negative results. Acceptable measurement precision was demonstrated.

PESTICIDES

CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 were analyzed for pesticides by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and six instrument blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 01Aug13. Single component pesticide standards of 5, 25, 50, 75 and 100 ng/ml were analyzed on two chromatography columns, ZB-MR2 and ZB-MR1. These standards produced an acceptable level of instrument response and demonstrated an acceptable degree of linearity. It is noted that a Performance Evaluation Mixture (PEM) and a resolution check standard (RESCHK) were analyzed, as required, prior to the calibration standards. These checks demonstrated an acceptable level of chromatographic resolution and a clean and stable injection system. It is noted that the recovery of 4,4'-DDT from the PEM was slightly elevated (26.6%) on the ZB-MR1 column. This performance, however, warrants no

concern because acceptable performance was obtained from the ZB-MR2 column.

Calibration verifications were performed on 01Aug13 and 08Aug13, prior to and following each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

TS-C-02 and CS-C-06 were selected for matrix spiking. The entire list of targeted single component pesticides was added to two portions of each of these samples. The recoveries reported for these spikes included high results for Endosulfan II (137%,137%) from CS-C-06 and low Endosulfan Sulfate (35%,35%) recoveries from TS-C-02. The positive bias demonstrated by Endosulfan II warrants no concern because Endosulfan II was note detected in program samples. The Endosulfan Sulfate result from every program sample except CS-C-06 has been qualified as an estimation.

The ZB-MR1 and ZB-MR2 columns produced unacceptable differences in measurements of Endosulfan II from CS-C-06MS (41%) and CS-C-06MSD (42.6%). This performance, however, had no impact on reported data because Endosulfan II was not detected in this group of samples.

Spike recoveries were all so reported from an MS/MSD pair created from a non-program sample. This information was not considered relevant.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced an acceptable recovery of each single component pesticide.

Duplicates

Field split duplicates of CS-C-05 and TS-C-02 were included in this delivery group. Both pairs of duplicate samples produced negative results. Acceptable measurement precision was demonstrated.

PCB

CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 were analyzed for PCB by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and nine instrument blanks were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to insure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

Initial instrument calibrations were performed on 30Jul13 and 07Aug13. Each calibration addressed five representative peaks of AR1016 and AR1260 at concentrations of 50, 250, 500, 750 and 1000 ng/ml. These standards were analyzed on two chromatographic columns. ZB-MR1 and ZB-MR2 were used on 30Jul13; RTX-CLPest and RTX-CLPestII on 07Aug13. Each sequence of standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity. Single point calibrations were performed for the representative peaks of AR1221, AR1232, AR1242, AR1248, AR1254, AR1262 and AR1268.

Calibration verification standards of AR1016 and AR1260 were analyzed on 02Aug13 and 08Aug13, prior to and following each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability.

It is noted that an unacceptable shift was observed in the response of one AR1660 peak during a calibration check on 02Aug13. This performance had no impact on reported data because acceptable performance was obtained from the second chromatographic column.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

CS-C-06 and CS-C-05X were selected for matrix spiking. AR1016 and AR1260 were added to two portions of each of these samples. The recoveries reported for these spikes demonstrated acceptable levels of measurement accuracy and precision.

Spike recoveries were also reported from an MS/MSD pair created from a non-program sample. This information was not considered relevant.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of AR1016 and AR1260.

Duplicates

Field split duplicates of CS-C-05 and TS-C-02 were included in this delivery group. Both pairs of duplicate samples produced

in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

2,4-DCAA was added as a surrogate compound to each program and QC sample. The additions to each program sample were recovered successfully. It is noted that a high surrogate recovery was reported from one instrument blank, and low recoveries were reported from MS/MSD samples prepared with a non-program sample. This performance had no impact on reported data.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

TS-C-02X and CS-C-06 were selected for matrix spiking. 2,4,5-TP was added to two portions of each of these samples. The recoveries reported for these spikes demonstrated consistent negative bias (38%, 40%,37%,23%). The 2,4,5-TP results from this group of samples have been qualified as estimations based on this performance.

Two spiked blanks (LCS) were also extracted and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of 2,4,5-TP (65%,100%).

Duplicates

Field split duplicates of CS-C-05 and TS-C-02 were included in this delivery group. Both pairs of duplicate samples produced negative results. Acceptable measurement precision was demonstrated.

METALS

CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 were analyzed for mercury and ICP metals. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Calibrations

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence.

The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples included unacceptable recoveries of zinc (111.1%,179.6%) and copper (325.0%). This performance, however, was not associated with samples from this program. Data qualifications are not required.

Contract Required Detection Limit Standards (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

The recoveries reported for these standards satisfied the ASP acceptance criteria.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination.

Interference Check Sample (ICSA, ICSAB)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference check standards were reported from the beginning of each ICP analysis sequence. ICS standards were not analyzed at

the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The ICS performance associated with the analytes targeted by this program satisfied the ASP acceptance criteria.

Predigestion Spike

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

CS-C-03 and CS-C-06 were selected for matrix spiking. Although the spike recoveries reported for most of the metals targeted by this program demonstrated an acceptable level measurement accuracy, a low recovery of chromium (73%) was reported from CS-C-03, and a low copper (72%) result was obtained from CS-C-06. The copper and chromium results from this project have been qualified as estimations based on these indications of negative bias.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

CS-C-03 and CS-C-06 were analyzed as laboratory split duplicate samples. The concentrations obtained from these samples, as well as from each MS/MSD pair, demonstrated an acceptable level of measurement precision.

Field split duplicates of CS-C-05 and TS-C-02 were included in this delivery group. The concentrations obtained from both pairs of samples were in close agreement and differed by less than 42%RPD. Low concentrations differed by less than CRQL. An acceptable level of program precision was demonstrated.

Laboratory Control Standards

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two spiked blanks (LCS) were digested and analyzed with this group of samples. Both LCS produced acceptable recoveries of each analyte targeted by this program.

Serial Dilution Samples

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

CS-C-03 and CS-C-06 were prepared serial dilutions. Of the analytes present in these samples, at a concentration exceeding fifty times IDL, only barium (13.4%,16.3%), chromium (23.3%,19.5%), copper (14.6%,28.3%), manganese (22.6%,24.8%) and zinc (18.1%) differed from the diluted result by more than 10%. The barium, chromium, copper, manganese and zinc results from this group of samples have been qualified as estimations based on this performance.

WET CHEMISTRY

CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 were analyzed for hexavalent chromium, cyanide and trivalent chromium. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Hexavalent Chromium (CrVI) and Cyanide

The analysis of CrVI and cyanide samples was associated with the appropriate QC checks. The reported QC included acceptable calibration performance and clean blanks. Duplicate samples, spiked samples and spiked blanks demonstrated acceptable levels of measurement accuracy and precision.

Field split duplicates of CS-C-05 and TS-C-02 were included in this delivery group. Both pairs of duplicate samples produced negative results. Acceptable measurement precision was demonstrated.

Trivalent Chromium

Because CS-C-03, CS-C-04, CS-C-05, CS-C-05X, TS-C-02, TS-C-02X and CS-C-06 produced negative CrVI results, the trivalent chromium concentration in these samples equaled the reported concentration of total chromium.

The trivalent chromium results from this project have been qualified as estimations because the total chromium determinations demonstrated poor matrix spike and serial dilution performance.

SUMMARY OF QUALIFIED DATA

CBS Townley Hill Site

SAMPLED: July 30, 2013 and August 5, 2013

		BLANK ACETONE	BLANK METH CL	CALIBRATE 1,4-DIOXANE	DUPES ACETONE	SPIKES ENDO SO4	SPIKES 2,4,5-TP	SPIKES CHROMIUM	SPIKES COPPER
CS-D-08	(E3133-01)			88.9UJ					
CS-D-09	(E3133-02)			96.1UJ					
CS-D-10	(E3133-03)			96.5UJ					
CS-D-11	(E3133-04)			99.4UJ					
CS-D-12	(E3133-05)			85.6UJ					
CS-D-13	(E3133-06)			92.4UJ					
CS-D-14	(E3133-07)			110UJ					
CS-D-14X	(E3133-08)	110J		110UJ	110J				
TB-002	(E3133-09)			50UJ					
CS-C-03	(E3133-10)					0.342UJ	17.3UJ	11.4J	13.3J
CS-C-04	(E3133-11)					0.352UJ	17.8UJ	9.91J	15.9J
CS-C-05	(E3133-12)					0.350UJ	17.7UJ	7.36J	13.7J
CS-C-05X	(E3133-13)					0.350UJ	17.7UJ	9.96J	12.5J
TS-D-02	(E3133-14)			110UJ					
TS-D-03	(E3133-15)			100UJ					
TS-D-04	(E3133-16)			96.1UJ					
TS-D-05	(E3133-17)			100UJ					
TS-D-06	(E3133-18)			110UJ					
TS-D-07	(E3133-19)			97.2UJ					
TS-D-08	(E3133-20)			110UJ					
TS-D-08X	(E3133-21)			100UJ					
TS-C-02	(E3133-22)					0.369UJ	18.6UJ	13.4J	14.3J
TS-C-02X	(E3133-23)					0.371UJ	18.7UJ	9.45J	13.6J
CS-D-15	(E3133-24)			100UJ					
CS-C-06	(E3133-27)						17.7UJ	6.56J	12.3J
TS-D-09	(E3133-30)		7.1J	110UJ					
TB-003	(E3133-33)			50UJ					

SUMMARY OF QUALIFIED DATA

CBS Townley Hill Site

SAMPLED: July 30, 2013 and August 5, 2013

		SER DIL BARIUM	SER DIL CHROMIUM	SER DIL COPPER	SER DIL MANGANESE	SER DIL ZINC	SPIKES/SER DIL CHROMIUM III	SPIKE METH CL
CS-D-08	(E3133-01)							
CS-D-09	(E3133-02)							
CS-D-10	(E3133-03)							
CS-D-11	(E3133-04)							
CS-D-12	(E3133-05)							
CS-D-13	(E3133-06)							
CS-D-14	(E3133-07)							
CS-D-14X	(E3133-08)							
TB-002	(E3133-09)							
CS-C-03	(E3133-10)	60.6J	11.4J	13.3J	504J	41.9J	11.4J	
CS-C-04	(E3133-11)	87.6J	9.91J	15.9J	435J	52.5J	9.91J	
CS-C-05	(E3133-12)	48.1J	7.36J	13.7J	300J	36.9J	7.36J	
CS-C-05X	(E3133-13)	54.7J	9.96J	12.5J	356J	42.7J	9.96J	
TS-D-02	(E3133-14)							
TS-D-03	(E3133-15)							
TS-D-04	(E3133-16)							
TS-D-05	(E3133-17)							
TS-D-06	(E3133-18)							
TS-D-07	(E3133-19)							
TS-D-08	(E3133-20)							
TS-D-08X	(E3133-21)							
TS-C-02	(E3133-22)	44.9J	13.4J	14.3J	399J	48.3J	13.4J	
TS-C-02X	(E3133-23)	43.7J	9.45J	13.6J	381J	41.3J	9.49J	
CS-D-15	(E3133-24)							
CS-C-06	(E3133-27)	41.5J	6.56J	12.3J	326J	47.6J	6.56J	
TS-D-09	(E3133-30)							7.1J
TB-003	(E3133-33)							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 10:52:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
		% Solid:	96.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.13	U	1	0.034	0.13	0.259	mg/Kg	08/01/13	08/01/13 14:52	9012B
Hexavalent Chromium	0.199	U	1	0.08	0.199	0.398	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	11.4	J	1	0.104	0.104	0.104	mg/Kg	08/01/13	08/01/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 10:57:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
		% Solid:	93.5

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.134	U	1	0.035	0.134	0.267	mg/Kg	08/01/13	08/01/13 14:52	9012B
Hexavalent Chromium	0.199	U	1	0.079	0.199	0.397	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	9.91	J	1	0.107	0.107	0.107	mg/Kg	08/02/13	08/02/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
D = Dilution
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H = Sample Analysis Out Of Hold Time

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B = Analyte Found in Associated Method Blank
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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 11:45:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
		% Solid:	94

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.133	U	1	0.035	0.133	0.265	mg/Kg	08/01/13	08/01/13 14:52	9012B
Hexavalent Chromium	0.199	U	1	0.08	0.199	0.398	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	7.36	J	1	0.106	0.106	0.106	mg/Kg	08/02/13	08/02/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 11:47:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
		% Solid:	94

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.133	U	1	0.035	0.133	0.265	mg/Kg	08/01/13	08/01/13 14:52	9012B
Hexavalent Chromium	0.199	U	1	0.08	0.199	0.398	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	9.96	J	1	0.106	0.106	0.106	mg/Kg	08/02/13	08/02/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 12:39:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
		% Solid:	89.3

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.14	U	1	0.037	0.14	0.28	mg/Kg	08/01/13	08/01/13 14:52	9012B
Hexavalent Chromium	0.2	U	1	0.08	0.2	0.4	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	13.4	J	1	0.112	0.112	0.112	mg/Kg	08/02/13	08/02/13 00:00	6010B

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13 12:41:00
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
		% Solid:	88.9

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.14	U	1	0.037	0.14	0.28	mg/Kg	08/01/13	08/01/13 14:59	9012B
Hexavalent Chromium	0.199	U	1	0.08	0.199	0.398	mg/Kg	08/01/13	08/01/13 12:45	7196A
Trivalent Chromium	9.45	J	1	0.112	0.112	0.112	mg/Kg	08/02/13	08/02/13 00:00	6010B

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13 16:10:00
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
		% Solid:	94.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.133	U	1	0.035	0.133	0.265	mg/Kg	08/06/13	08/07/13 12:02	9012B
Hexavalent Chromium	0.212	U	1	0.085	0.212	0.423	mg/Kg	08/06/13	08/06/13 14:45	7196A
Trivalent Chromium	6.56	J	1	0.106	0.106	0.106	mg/Kg	08/08/13	08/08/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67114

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Hexavalent Chromium		mg/L	0.50	0.50	100	90-110	08/01/2013
Sample ID:	**CCV2**						
Hexavalent Chromium		mg/L	0.49	0.50	98	90-110	08/01/2013
Sample ID:	**CCV3**						
Hexavalent Chromium		mg/L	0.49	0.50	98	90-110	08/01/2013
Sample ID:	**ICV1**						
Hexavalent Chromium		mg/L	0.50	0.50	100	90-110	08/01/2013

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67122

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.24	0.25	96	90-110	08/01/2013
Sample ID:	**ICVPB71429**						
Cyanide		mg/L	0.09	0.10	90	85-115	08/01/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.24	0.25	96	90-110	08/01/2013
Sample ID:	**CCV3**						
Cyanide		mg/L	0.24	0.25	96	90-110	08/01/2013

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67184

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	08/06/2013
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	08/06/2013
Sample ID: ICV1						
Hexavalent Chromium	mg/L	0.51	0.50	102	90-110	08/06/2013

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67205

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.24	0.25	96	90-110	08/07/2013
Sample ID:	**ICVPB71530**						
Cyanide		mg/L	0.10	0.10	100	85-115	08/07/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	08/07/2013
Sample ID:	**CCV3**						
Cyanide		mg/L	0.25	0.25	100	90-110	08/07/2013

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E3133
Project:	Catlin NY	**RunNo.:**	LB67205

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67114

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/01/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/01/2013
Sample ID: CCB3						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/01/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/01/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67122

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	**CCB1**						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/01/2013
Sample ID:	**ICB1**						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/01/2013
Sample ID:	**CCB2**						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/01/2013
Sample ID:	**CCB3**						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/01/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67184

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/06/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/06/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	08/06/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **RunNo.:** LB67205

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/07/2013
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/07/2013
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/07/2013
Sample ID:	CCB3						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	08/07/2013

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Initial and Continuing Calibration Blank Summary

Client:	VIASANT, LLC	**SDG No.:**	E3133
Project:	Catlin NY	**RunNo.:**	LB67205

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: LB67114BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	08/01/2013
Sample ID: LB67122BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	08/01/2013
Sample ID: LB67184BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	08/06/2013
Sample ID: LB67205BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	08/07/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-06S

SDG No.: E3133
Sample ID: E3133-27
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	39.00		0.09	U	42.00	2	93		08/06/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E3133
Project: Catlin NY
Sample ID: E3133-27
Client ID: CS-C-06S
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1300.00		0.09	U	1400.00	40	93		08/06/2013
Cyanide	mg/Kg	48-158	2.230		0.035	U	2.12	1	105		08/07/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-06S

SDG No.: E3133
Sample ID: E3133-27
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	41.00		0.09	U	42.00	2	98		08/06/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-06SD

SDG No.: E3133
Sample ID: E3133-27
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.250		0.035	U	2.12	1	106		08/07/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-N-COMPS
SDG No.: E3133
Sample ID: E3141-02 non-program sample
Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.240		0.128	J	2.28	1	93		08/01/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-N-COMPSD

SDG No.: E3133
Sample ID: E3141-02 non-program sample
Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.240		0.128	J	2.28	1	93		08/01/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-S-COMPS

SDG No.: E3133
Sample ID: E3141-04 non-program sample
Percent Solids for Spike Sample: 88.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	43.00		0.09	U	45.00	2	96		08/01/2013
Hexavalent Chromium	mg/Kg	75-125	1300.00		0.09	U	1450.00	40	90		08/01/2013
Hexavalent Chromium	mg/Kg	85-115	44.00		0.09	U	45.00	2	110		08/01/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-06D

SDG No.: E3133
Sample ID: E3133-27
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.09	U	0.09	U	1	0		08/06/2013
Cyanide	mg/Kg	+/-20	0.035	U	0.035	U	1	0		08/07/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-06SD

SDG No.: E3133
Sample ID: E3133-27
Percent Solids for Spike Sample: 94.2

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.230	2.250		1	0.9		08/07/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-N-COMPD
SDG No.: E3133
Sample ID: E3141-02 non-program sample
Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.128	J	0.038	U	1	200		08/01/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-N-COMPSD

SDG No.: E3133
Sample ID: E3141-02 non-program sample
Percent Solids for Spike Sample: 87.7

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.240	2.240		1	0		08/01/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CELL2-S-COMPD

SDG No.: E3133
Sample ID: E3141-04 non-program sample
Percent Solids for Spike Sample: 88.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.09	U	0.09	U	1	0		08/01/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **Run No.:** LB67114

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB67114BSS								
Hexavalent Chromium	mg/Kg	20.00	20.00		100	1	80-120	08/01/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **Run No.:** LB67122

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB67122BSS								
Cyanide		mg/Kg	10.00	9.41		94 ✓	1	80-110	08/01/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **Run No.:** LB67184

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB67184BSS								
Hexavalent Chromium	mg/Kg	20.00	20.00		100	1	80-120	08/06/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E3133

Project: Catlin NY **Run No.:** LB67205

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB67205BSS								
Cyanide		mg/Kg	10.00	9.25		93	1	80-110	08/07/2013

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Level (low/med):	low	% Solid:	96.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	4.68		1	0.142	0.215	0.43	mg/Kg	08/01/13	08/05/13	SW6010
7440-39-3	Barium	60.6	J	1	0.172	1.075	2.15	mg/Kg	08/01/13	08/05/13	SW6010
7440-41-7	Beryllium	0.052	J	1	0.026	0.065	0.129	mg/Kg	08/01/13	08/05/13	SW6010
7440-43-9	Cadmium	0.742		1	0.026	0.065	0.129	mg/Kg	08/01/13	08/05/13	SW6010
7440-47-3	Chromium	11.4	J	1	0.056	0.108	0.215	mg/Kg	08/01/13	08/05/13	SW6010
7440-50-8	Copper	13.3	J	1	0.138	0.215	0.43	mg/Kg	08/01/13	08/05/13	SW6010
7439-92-1	Lead	10.9		1	0.052	0.129	0.258	mg/Kg	08/01/13	08/05/13	SW6010
7439-96-5	Manganese	504	J	1	0.082	0.215	0.43	mg/Kg	08/01/13	08/05/13	SW6010
7439-97-6	Mercury	0.003	J	1	0.002	0.005	0.01	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	17.6		1	0.198	0.431	0.861	mg/Kg	08/01/13	08/05/13	SW6010
7782-49-2	Selenium	3.05		1	0.176	0.215	0.43	mg/Kg	08/01/13	08/05/13	SW6010
7440-22-4	Silver	0.108	U	1	0.065	0.108	0.215	mg/Kg	08/01/13	08/05/13	SW6010
7440-66-6	Zinc	41.9	J	1	0.301	0.431	0.861	mg/Kg	08/01/13	08/05/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	93.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	6.07		1	0.16	0.242	0.484	mg/Kg	08/01/13	08/02/13	SW6010
7440-39-3	Barium	87.6	J	1	0.194	1.21	2.42	mg/Kg	08/01/13	08/02/13	SW6010
7440-41-7	Beryllium	0.062	J	1	0.029	0.073	0.145	mg/Kg	08/01/13	08/02/13	SW6010
7440-43-9	Cadmium	0.935		1	0.029	0.073	0.145	mg/Kg	08/01/13	08/02/13	SW6010
7440-47-3	Chromium	9.91	J	1	0.063	0.121	0.242	mg/Kg	08/01/13	08/02/13	SW6010
7440-50-8	Copper	15.9	J	1	0.155	0.242	0.484	mg/Kg	08/01/13	08/02/13	SW6010
7439-92-1	Lead	10.3		1	0.058	0.145	0.29	mg/Kg	08/01/13	08/02/13	SW6010
7439-96-5	Manganese	435	J	1	0.092	0.242	0.484	mg/Kg	08/01/13	08/02/13	SW6010
7439-97-6	Mercury	0.004	J	1	0.002	0.006	0.011	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	18.7		1	0.223	0.484	0.968	mg/Kg	08/01/13	08/02/13	SW6010
7782-49-2	Selenium	4.54		1	0.198	0.242	0.484	mg/Kg	08/01/13	08/02/13	SW6010
7440-22-4	Silver	0.121	U	1	0.073	0.121	0.242	mg/Kg	08/01/13	08/02/13	SW6010
7440-66-6	Zinc	52.5	J	1	0.339	0.484	0.968	mg/Kg	08/01/13	08/02/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Level (low/med):	low	% Solid:	94

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	4.94		1	0.157	0.238	0.475	mg/Kg	08/01/13	08/02/13	SW6010
7440-39-3	Barium	48.1	J	1	0.19	1.185	2.37	mg/Kg	08/01/13	08/02/13	SW6010
7440-41-7	Beryllium	0.074	J	1	0.028	0.071	0.142	mg/Kg	08/01/13	08/02/13	SW6010
7440-43-9	Cadmium	0.648		1	0.028	0.071	0.142	mg/Kg	08/01/13	08/02/13	SW6010
7440-47-3	Chromium	7.36	J	1	0.062	0.119	0.237	mg/Kg	08/01/13	08/02/13	SW6010
7440-50-8	Copper	13.7	J	1	0.152	0.238	0.475	mg/Kg	08/01/13	08/02/13	SW6010
7439-92-1	Lead	12.5		1	0.057	0.143	0.285	mg/Kg	08/01/13	08/02/13	SW6010
7439-96-5	Manganese	300	J	1	0.09	0.238	0.475	mg/Kg	08/01/13	08/02/13	SW6010
7439-97-6	Mercury	0.003	J	1	0.002	0.005	0.009	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	13.8		1	0.218	0.475	0.95	mg/Kg	08/01/13	08/02/13	SW6010
7782-49-2	Selenium	2.98		1	0.195	0.238	0.475	mg/Kg	08/01/13	08/02/13	SW6010
7440-22-4	Silver	0.119	U	1	0.071	0.119	0.237	mg/Kg	08/01/13	08/02/13	SW6010
7440-66-6	Zinc	36.9	J	1	0.332	0.475	0.95	mg/Kg	08/01/13	08/02/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Level (low/med):	low	% Solid:	94

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	5.26		1	0.153	0.232	0.463	mg/Kg	08/01/13	08/02/13	SW6010
7440-39-3	Barium	54.7	J	1	0.185	1.155	2.31	mg/Kg	08/01/13	08/02/13	SW6010
7440-41-7	Beryllium	0.088	J	1	0.028	0.07	0.139	mg/Kg	08/01/13	08/02/13	SW6010
7440-43-9	Cadmium	0.684		1	0.028	0.07	0.139	mg/Kg	08/01/13	08/02/13	SW6010
7440-47-3	Chromium	9.96	J	1	0.06	0.116	0.231	mg/Kg	08/01/13	08/02/13	SW6010
7440-50-8	Copper	12.5	J	1	0.148	0.232	0.463	mg/Kg	08/01/13	08/02/13	SW6010
7439-92-1	Lead	8.14		1	0.056	0.139	0.278	mg/Kg	08/01/13	08/02/13	SW6010
7439-96-5	Manganese	356	J	1	0.088	0.232	0.463	mg/Kg	08/01/13	08/02/13	SW6010
7439-97-6	Mercury	0.003	J	1	0.002	0.005	0.01	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	16.2		1	0.213	0.463	0.925	mg/Kg	08/01/13	08/02/13	SW6010
7782-49-2	Selenium	3.11		1	0.19	0.232	0.463	mg/Kg	08/01/13	08/02/13	SW6010
7440-22-4	Silver	0.116	U	1	0.069	0.116	0.231	mg/Kg	08/01/13	08/02/13	SW6010
7440-66-6	Zinc	42.7	J	1	0.324	0.463	0.925	mg/Kg	08/01/13	08/02/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	6.67		1	0.158	0.24	0.479	mg/Kg	08/01/13	08/02/13	SW6010
7440-39-3	Barium	44.9	J	1	0.191	1.195	2.39	mg/Kg	08/01/13	08/02/13	SW6010
7440-41-7	Beryllium	0.199		1	0.029	0.072	0.144	mg/Kg	08/01/13	08/02/13	SW6010
7440-43-9	Cadmium	0.829		1	0.029	0.072	0.144	mg/Kg	08/01/13	08/02/13	SW6010
7440-47-3	Chromium	13.4	J	1	0.062	0.12	0.239	mg/Kg	08/01/13	08/02/13	SW6010
7440-50-8	Copper	14.3	J	1	0.153	0.24	0.479	mg/Kg	08/01/13	08/02/13	SW6010
7439-92-1	Lead	10.6		1	0.057	0.144	0.287	mg/Kg	08/01/13	08/02/13	SW6010
7439-96-5	Manganese	399	J	1	0.091	0.24	0.479	mg/Kg	08/01/13	08/02/13	SW6010
7439-97-6	Mercury	0.01		1	0.002	0.005	0.01	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	21.3		1	0.22	0.479	0.957	mg/Kg	08/01/13	08/02/13	SW6010
7782-49-2	Selenium	4.29		1	0.196	0.24	0.479	mg/Kg	08/01/13	08/02/13	SW6010
7440-22-4	Silver	0.12	U	1	0.072	0.12	0.239	mg/Kg	08/01/13	08/02/13	SW6010
7440-66-6	Zinc	48.3	J	1	0.335	0.479	0.957	mg/Kg	08/01/13	08/02/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	6.86		1	0.155	0.235	0.469	mg/Kg	08/01/13	08/02/13	SW6010
7440-39-3	Barium	43.7	J	1	0.187	1.17	2.34	mg/Kg	08/01/13	08/02/13	SW6010
7440-41-7	Beryllium	0.178		1	0.028	0.071	0.141	mg/Kg	08/01/13	08/02/13	SW6010
7440-43-9	Cadmium	0.806		1	0.028	0.071	0.141	mg/Kg	08/01/13	08/02/13	SW6010
7440-47-3	Chromium	9.45	J	1	0.061	0.117	0.234	mg/Kg	08/01/13	08/02/13	SW6010
7440-50-8	Copper	13.6	J	1	0.15	0.235	0.469	mg/Kg	08/01/13	08/02/13	SW6010
7439-92-1	Lead	10.3		1	0.056	0.141	0.281	mg/Kg	08/01/13	08/02/13	SW6010
7439-96-5	Manganese	381	J	1	0.089	0.235	0.469	mg/Kg	08/01/13	08/02/13	SW6010
7439-97-6	Mercury	0.013		1	0.002	0.005	0.01	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	19		1	0.216	0.469	0.937	mg/Kg	08/01/13	08/02/13	SW6010
7782-49-2	Selenium	4.23		1	0.192	0.235	0.469	mg/Kg	08/01/13	08/02/13	SW6010
7440-22-4	Silver	0.117	U	1	0.07	0.117	0.234	mg/Kg	08/01/13	08/02/13	SW6010
7440-66-6	Zinc	41.3	J	1	0.328	0.469	0.937	mg/Kg	08/01/13	08/02/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Level (low/med):	low	% Solid:	94.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	6.04		1	0.15	0.225	0.45	mg/Kg	08/07/13	08/08/13	SW6010
7440-39-3	Barium	41.5	J	1	0.18	1.135	2.27	mg/Kg	08/07/13	08/08/13	SW6010
7440-41-7	Beryllium	0.17		1	0.03	0.07	0.14	mg/Kg	08/07/13	08/08/13	SW6010
7440-43-9	Cadmium	0.25		1	0.03	0.07	0.14	mg/Kg	08/07/13	08/08/13	SW6010
7440-47-3	Chromium	6.56	J	1	0.06	0.115	0.23	mg/Kg	08/07/13	08/08/13	SW6010
7440-50-8	Copper	12.3	J N	1	0.15	0.225	0.45	mg/Kg	08/07/13	08/08/13	SW6010
7439-92-1	Lead	7.89		1	0.05	0.135	0.27	mg/Kg	08/07/13	08/08/13	SW6010
7439-96-5	Manganese	326	J	1	0.09	0.225	0.45	mg/Kg	08/07/13	08/08/13	SW6010
7439-97-6	Mercury	0.003	J	1	0.002	0.006	0.011	mg/Kg	08/07/13	08/07/13	SW7471A
7440-02-0	Nickel	13		1	0.21	0.455	0.91	mg/Kg	08/07/13	08/08/13	SW6010
7782-49-2	Selenium	0.225	U	1	0.19	0.225	0.45	mg/Kg	08/07/13	08/08/13	SW6010
7440-22-4	Silver	0.115	U	1	0.07	0.115	0.23	mg/Kg	08/07/13	08/08/13	SW6010
7440-66-6	Zinc	47.6	J N	1	0.32	0.455	0.91	mg/Kg	08/07/13	08/08/13	SW6010

Color Before:	Gray	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Mercury				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	986.94	999.0	98.8	90 - 110	P	08/08/2013	18:31	LB67237A
	Barium	514.03	503.0	102.2	90 - 110	P	08/08/2013	18:31	LB67237A
	Beryllium	473.49	495.0	95.7	90 - 110	P	08/08/2013	18:31	LB67237A
	Cadmium	476.91	496.0	96.2	90 - 110	P	08/08/2013	18:31	LB67237A
	Chromium	489.86	490.0	100.0	90 - 110	P	08/08/2013	18:31	LB67237A
	Copper	512.11	492.0	104.1	90 - 110	P	08/08/2013	18:31	LB67237A
	Lead	979.74	1002.0	97.8	90 - 110	P	08/08/2013	18:31	LB67237A
	Manganese	496.26	499.0	99.5	90 - 110	P	08/08/2013	18:31	LB67237A
	Nickel	488.87	503.0	97.2	90 - 110	P	08/08/2013	18:31	LB67237A
	Selenium	982.14	1003.0	97.9	90 - 110	P	08/08/2013	18:31	LB67237A
	Silver	476.30	501.0	95.1	90 - 110	P	08/08/2013	18:31	LB67237A
	Zinc	997.57	1025.0	97.3	90 - 110	P	08/08/2013	18:31	LB67237A
LLICV01	Arsenic	21.53	20.0	107.6	70 - 130	P	08/08/2013	18:34	LB67237A
	Barium	103.34	100.0	103.3	70 - 130	P	08/08/2013	18:34	LB67237A
	Beryllium	5.84	6.0	97.3	70 - 130	P	08/08/2013	18:34	LB67237A
	Cadmium	6.61	6.0	110.2	70 - 130	P	08/08/2013	18:34	LB67237A
	Chromium	9.94	10.0	99.4	70 - 130	P	08/08/2013	18:34	LB67237A
	Copper	20.80	20.0	104.0	70 - 130	P	08/08/2013	18:34	LB67237A
	Lead	14.30	12.0	119.2	70 - 130	P	08/08/2013	18:34	LB67237A
	Manganese	20.00	20.0	100.0	70 - 130	P	08/08/2013	18:34	LB67237A
	Nickel	38.78	40.0	97.0	70 - 130	P	08/08/2013	18:34	LB67237A
	Selenium	20.75	20.0	103.8	70 - 130	P	08/08/2013	18:34	LB67237A
	Silver	9.26	10.0	92.6	70 - 130	P	08/08/2013	18:34	LB67237A
	Zinc	41.20	40.0	103.0	70 - 130	P	08/08/2013	18:34	LB67237A
CCV01	Arsenic	4957.10	5000.0	99.1	90 - 110	P	08/08/2013	18:52	LB67237A
	Barium	10115.00	10000.0	101.2	90 - 110	P	08/08/2013	18:52	LB67237A
	Beryllium	245.33	250.0	98.1	90 - 110	P	08/08/2013	18:52	LB67237A
	Cadmium	2464.40	2500.0	98.6	90 - 110	P	08/08/2013	18:52	LB67237A
	Chromium	984.72	1000.0	98.5	90 - 110	P	08/08/2013	18:52	LB67237A
	Copper	1247.30	1250.0	99.8	90 - 110	P	08/08/2013	18:52	LB67237A
	Lead	4937.20	5000.0	98.7	90 - 110	P	08/08/2013	18:52	LB67237A
	Manganese	2455.80	2500.0	98.2	90 - 110	P	08/08/2013	18:52	LB67237A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Nickel	2465.00	2500.0	98.6	90 - 110	P	08/08/2013	18:52	LB67237A
	Selenium	4946.50	5000.0	98.9	90 - 110	P	08/08/2013	18:52	LB67237A
	Silver	1222.70	1250.0	97.8	90 - 110	P	08/08/2013	18:52	LB67237A
	Zinc	2521.00	2500.0	100.8	90 - 110	P	08/08/2013	18:52	LB67237A
LLCCV01	Arsenic	20.56	20.0	102.8	70 - 130	P	08/08/2013	18:55	LB67237A
	Barium	104.70	100.0	104.7	70 - 130	P	08/08/2013	18:55	LB67237A
	Beryllium	5.95	6.0	99.2	70 - 130	P	08/08/2013	18:55	LB67237A
	Cadmium	6.13	6.0	102.2	70 - 130	P	08/08/2013	18:55	LB67237A
	Chromium	9.32	10.0	93.2	70 - 130	P	08/08/2013	18:55	LB67237A
	Copper	20.60	20.0	103.0	70 - 130	P	08/08/2013	18:55	LB67237A
	Lead	12.78	12.0	106.5	70 - 130	P	08/08/2013	18:55	LB67237A
	Manganese	20.14	20.0	100.7	70 - 130	P	08/08/2013	18:55	LB67237A
	Nickel	38.24	40.0	95.6	70 - 130	P	08/08/2013	18:55	LB67237A
	Selenium	20.72	20.0	103.6	70 - 130	P	08/08/2013	18:55	LB67237A
	Silver	10.04	10.0	100.4	70 - 130	P	08/08/2013	18:55	LB67237A
	Zinc	41.07	40.0	102.7	70 - 130	P	08/08/2013	18:55	LB67237A
CCV02	Arsenic	4910.30	5000.0	98.2	90 - 110	P	08/08/2013	19:37	LB67237A
	Barium	10016.00	10000.0	100.2	90 - 110	P	08/08/2013	19:37	LB67237A
	Beryllium	244.31	250.0	97.7	90 - 110	P	08/08/2013	19:37	LB67237A
	Cadmium	2449.80	2500.0	98.0	90 - 110	P	08/08/2013	19:37	LB67237A
	Chromium	981.92	1000.0	98.2	90 - 110	P	08/08/2013	19:37	LB67237A
	Copper	1242.00	1250.0	99.4	90 - 110	P	08/08/2013	19:37	LB67237A
	Lead	4890.00	5000.0	97.8	90 - 110	P	08/08/2013	19:37	LB67237A
	Manganese	2449.90	2500.0	98.0	90 - 110	P	08/08/2013	19:37	LB67237A
	Nickel	2462.80	2500.0	98.5	90 - 110	P	08/08/2013	19:37	LB67237A
	Selenium	4941.60	5000.0	98.8	90 - 110	P	08/08/2013	19:37	LB67237A
	Silver	1213.60	1250.0	97.1	90 - 110	P	08/08/2013	19:37	LB67237A
	Zinc	2456.70	2500.0	98.3	90 - 110	P	08/08/2013	19:37	LB67237A
CCV03	Arsenic	4780.10	5000.0	95.6	90 - 110	P	08/08/2013	20:19	LB67237A
	Barium	9391.10	10000.0	93.9	90 - 110	P	08/08/2013	20:19	LB67237A
	Beryllium	240.29	250.0	96.1	90 - 110	P	08/08/2013	20:19	LB67237A
	Cadmium	2376.80	2500.0	95.1	90 - 110	P	08/08/2013	20:19	LB67237A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Chromium	970.21	1000.0	97.0	90 - 110	P	08/08/2013	20:19	LB67237A
	Copper	1210.00	1250.0	96.8	90 - 110	P	08/08/2013	20:19	LB67237A
	Lead	4747.70	5000.0	95.0	90 - 110	P	08/08/2013	20:19	LB67237A
	Manganese	2430.00	2500.0	97.2	90 - 110	P	08/08/2013	20:19	LB67237A
	Nickel	2387.70	2500.0	95.5	90 - 110	P	08/08/2013	20:19	LB67237A
	Selenium	4788.40	5000.0	95.8	90 - 110	P	08/08/2013	20:19	LB67237A
	Silver	1195.70	1250.0	95.7	90 - 110	P	08/08/2013	20:19	LB67237A
	Zinc	2293.30	2500.0	91.7	90 - 110	P	08/08/2013	20:19	LB67237A
LCCV02	Arsenic	20.02	20.0	100.1	70 - 130	P	08/08/2013	20:22	LB67237A
	Barium	102.58	100.0	102.6	70 - 130	P	08/08/2013	20:22	LB67237A
	Beryllium	5.42	6.0	90.3	70 - 130	P	08/08/2013	20:22	LB67237A
	Cadmium	5.85	6.0	97.5	70 - 130	P	08/08/2013	20:22	LB67237A
	Chromium	9.27	10.0	92.7	70 - 130	P	08/08/2013	20:22	LB67237A
	Copper	20.47	20.0	102.4	70 - 130	P	08/08/2013	20:22	LB67237A
	Lead	12.29	12.0	102.4	70 - 130	P	08/08/2013	20:22	LB67237A
	Manganese	21.29	20.0	106.4	70 - 130	P	08/08/2013	20:22	LB67237A
	Nickel	37.39	40.0	93.5	70 - 130	P	08/08/2013	20:22	LB67237A
	Selenium	20.59	20.0	103.0	70 - 130	P	08/08/2013	20:22	LB67237A
	Silver	9.26	10.0	92.6	70 - 130	P	08/08/2013	20:22	LB67237A
	Zinc	39.41	40.0	98.5	70 - 130	P	08/08/2013	20:22	LB67237A
CCV04	Arsenic	4819.80	5000.0	96.4	90 - 110	P	08/08/2013	21:04	LB67237A
	Barium	9597.50	10000.0	96.0	90 - 110	P	08/08/2013	21:04	LB67237A
	Beryllium	246.27	250.0	98.5	90 - 110	P	08/08/2013	21:04	LB67237A
	Cadmium	2401.60	2500.0	96.1	90 - 110	P	08/08/2013	21:04	LB67237A
	Chromium	995.88	1000.0	99.6	90 - 110	P	08/08/2013	21:04	LB67237A
	Copper	1223.80	1250.0	97.9	90 - 110	P	08/08/2013	21:04	LB67237A
	Lead	4791.00	5000.0	95.8	90 - 110	P	08/08/2013	21:04	LB67237A
	Manganese	2501.30	2500.0	100.1	90 - 110	P	08/08/2013	21:04	LB67237A
	Nickel	2415.30	2500.0	96.6	90 - 110	P	08/08/2013	21:04	LB67237A
	Selenium	4845.70	5000.0	96.9	90 - 110	P	08/08/2013	21:04	LB67237A
	Silver	1223.20	1250.0	97.9	90 - 110	P	08/08/2013	21:04	LB67237A
	Zinc	2527.00	2500.0	101.1	90 - 110	P	08/08/2013	21:04	LB67237A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Arsenic	21.33	20.0	106.6	70 - 130	P	08/08/2013	21:07	LB67237A
	Barium	103.65	100.0	103.6	70 - 130	P	08/08/2013	21:07	LB67237A
	Beryllium	5.71	6.0	95.2	70 - 130	P	08/08/2013	21:07	LB67237A
	Cadmium	6.10	6.0	101.7	70 - 130	P	08/08/2013	21:07	LB67237A
	Chromium	9.33	10.0	93.3	70 - 130	P	08/08/2013	21:07	LB67237A
	Copper	20.75	20.0	103.8	70 - 130	P	08/08/2013	21:07	LB67237A
	Lead	12.67	12.0	105.6	70 - 130	P	08/08/2013	21:07	LB67237A
	Manganese	22.19	20.0	111.0	70 - 130	P	08/08/2013	21:07	LB67237A
	Nickel	37.26	40.0	93.2	70 - 130	P	08/08/2013	21:07	LB67237A
	Selenium	23.67	20.0	118.4	70 - 130	P	08/08/2013	21:07	LB67237A
	Silver	8.94	10.0	89.4	70 - 130	P	08/08/2013	21:07	LB67237A
	Zinc	42.68	40.0	106.7	70 - 130	P	08/08/2013	21:07	LB67237A
CCV05	Arsenic	4801.00	5000.0	96.0	90 - 110	P	08/08/2013	21:50	LB67237A
	Barium	9827.50	10000.0	98.3	90 - 110	P	08/08/2013	21:50	LB67237A
	Beryllium	243.24	250.0	97.3	90 - 110	P	08/08/2013	21:50	LB67237A
	Cadmium	2399.30	2500.0	96.0	90 - 110	P	08/08/2013	21:50	LB67237A
	Chromium	987.23	1000.0	98.7	90 - 110	P	08/08/2013	21:50	LB67237A
	Copper	1217.30	1250.0	97.4	90 - 110	P	08/08/2013	21:50	LB67237A
	Lead	4770.00	5000.0	95.4	90 - 110	P	08/08/2013	21:50	LB67237A
	Manganese	2458.80	2500.0	98.4	90 - 110	P	08/08/2013	21:50	LB67237A
	Nickel	2411.90	2500.0	96.5	90 - 110	P	08/08/2013	21:50	LB67237A
	Selenium	4821.20	5000.0	96.4	90 - 110	P	08/08/2013	21:50	LB67237A
	Silver	1206.20	1250.0	96.5	90 - 110	P	08/08/2013	21:50	LB67237A
	Zinc	2597.00	2500.0	103.9	90 - 110	P	08/08/2013	21:50	LB67237A
LLCCV04	Arsenic	20.74	20.0	103.7	70 - 130	P	08/08/2013	21:53	LB67237A
	Barium	102.72	100.0	102.7	70 - 130	P	08/08/2013	21:53	LB67237A
	Beryllium	5.67	6.0	94.5	70 - 130	P	08/08/2013	21:53	LB67237A
	Cadmium	6.03	6.0	100.5	70 - 130	P	08/08/2013	21:53	LB67237A
	Chromium	9.28	10.0	92.8	70 - 130	P	08/08/2013	21:53	LB67237A
	Copper	19.88	20.0	99.4	70 - 130	P	08/08/2013	21:53	LB67237A
	Lead	13.94	12.0	116.2	70 - 130	P	08/08/2013	21:53	LB67237A
	Manganese	20.43	20.0	102.2	70 - 130	P	08/08/2013	21:53	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Nickel	37.74	40.0	94.4	70 - 130	P	08/08/2013	21:53	LB67237A
	Selenium	19.33	20.0	96.6	70 - 130	P	08/08/2013	21:53	LB67237A
	Silver	9.86	10.0	98.6	70 - 130	P	08/08/2013	21:53	LB67237A
	Zinc	41.91	40.0	104.8	70 - 130	P	08/08/2013	21:53	LB67237A
CCV06	Arsenic	4785.10	5000.0	95.7	90 - 110	P	08/08/2013	22:35	LB67237A
	Barium	9990.60	10000.0	99.9	90 - 110	P	08/08/2013	22:35	LB67237A
	Beryllium	240.71	250.0	96.3	90 - 110	P	08/08/2013	22:35	LB67237A
	Cadmium	2382.40	2500.0	95.3	90 - 110	P	08/08/2013	22:35	LB67237A
	Chromium	977.33	1000.0	97.7	90 - 110	P	08/08/2013	22:35	LB67237A
	Copper	1213.30	1250.0	97.1	90 - 110	P	08/08/2013	22:35	LB67237A
	Lead	4744.00	5000.0	94.9	90 - 110	P	08/08/2013	22:35	LB67237A
	Manganese	2434.00	2500.0	97.4	90 - 110	P	08/08/2013	22:35	LB67237A
	Nickel	2400.30	2500.0	96.0	90 - 110	P	08/08/2013	22:35	LB67237A
	Selenium	4818.00	5000.0	96.4	90 - 110	P	08/08/2013	22:35	LB67237A
	Silver	1202.40	1250.0	96.2	90 - 110	P	08/08/2013	22:35	LB67237A
	Zinc	2546.80	2500.0	101.9	90 - 110	P	08/08/2013	22:35	LB67237A
LLCCV05	Arsenic	18.20	20.0	91.0	70 - 130	P	08/08/2013	22:38	LB67237A
	Barium	101.85	100.0	101.8	70 - 130	P	08/08/2013	22:38	LB67237A
	Beryllium	5.65	6.0	94.2	70 - 130	P	08/08/2013	22:38	LB67237A
	Cadmium	5.45	6.0	90.8	70 - 130	P	08/08/2013	22:38	LB67237A
	Chromium	9.53	10.0	95.3	70 - 130	P	08/08/2013	22:38	LB67237A
	Copper	19.59	20.0	98.0	70 - 130	P	08/08/2013	22:38	LB67237A
	Lead	10.35	12.0	86.2	70 - 130	P	08/08/2013	22:38	LB67237A
	Manganese	19.64	20.0	98.2	70 - 130	P	08/08/2013	22:38	LB67237A
	Nickel	36.87	40.0	92.2	70 - 130	P	08/08/2013	22:38	LB67237A
	Selenium	20.35	20.0	101.8	70 - 130	P	08/08/2013	22:38	LB67237A
	Silver	8.96	10.0	89.6	70 - 130	P	08/08/2013	22:38	LB67237A
	Zinc	41.16	40.0	102.9	70 - 130	P	08/08/2013	22:38	LB67237A
CCV07	Arsenic	4824.30	5000.0	96.5	90 - 110	P	08/08/2013	23:21	LB67237A
	Barium	10668.00	10000.0	106.7	90 - 110	P	08/08/2013	23:21	LB67237A
	Beryllium	235.22	250.0	94.1	90 - 110	P	08/08/2013	23:21	LB67237A
	Cadmium	2408.10	2500.0	96.3	90 - 110	P	08/08/2013	23:21	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Chromium	953.54	1000.0	95.4	90 - 110	P	08/08/2013	23:21	LB67237A
	Copper	1226.40	1250.0	98.1	90 - 110	P	08/08/2013	23:21	LB67237A
	Lead	4796.00	5000.0	95.9	90 - 110	P	08/08/2013	23:21	LB67237A
	Manganese	2393.00	2500.0	95.7	90 - 110	P	08/08/2013	23:21	LB67237A
	Nickel	2424.90	2500.0	97.0	90 - 110	P	08/08/2013	23:21	LB67237A
	Selenium	4851.30	5000.0	97.0	90 - 110	P	08/08/2013	23:21	LB67237A
	Silver	1169.40	1250.0	93.6	90 - 110	P	08/08/2013	23:21	LB67237A
	Zinc	2776.50	2500.0	111.1	90 - 110	P	08/08/2013	23:21	LB67237A
LCCV06	Arsenic	19.84	20.0	99.2	70 - 130	P	08/08/2013	23:24	LB67237A
	Barium	103.04	100.0	103.0	70 - 130	P	08/08/2013	23:24	LB67237A
	Beryllium	5.68	6.0	94.7	70 - 130	P	08/08/2013	23:24	LB67237A
	Cadmium	5.68	6.0	94.7	70 - 130	P	08/08/2013	23:24	LB67237A
	Chromium	9.63	10.0	96.3	70 - 130	P	08/08/2013	23:24	LB67237A
	Copper	65.01	20.0	325.0	70 - 130	P	08/08/2013	23:24	LB67237A
	Lead	12.09	12.0	100.8	70 - 130	P	08/08/2013	23:24	LB67237A
	Manganese	21.99	20.0	110.0	70 - 130	P	08/08/2013	23:24	LB67237A
	Nickel	43.32	40.0	108.3	70 - 130	P	08/08/2013	23:24	LB67237A
	Selenium	18.57	20.0	92.8	70 - 130	P	08/08/2013	23:24	LB67237A
	Silver	9.50	10.0	95.0	70 - 130	P	08/08/2013	23:24	LB67237A
	Zinc	71.84	40.0	179.6	70 - 130	P	08/08/2013	23:24	LB67237A
CCV08	Arsenic	4810.30	5000.0	96.2	90 - 110	P	08/09/2013	00:06	LB67237A
	Barium	10075.00	10000.0	100.8	90 - 110	P	08/09/2013	00:06	LB67237A
	Beryllium	243.34	250.0	97.3	90 - 110	P	08/09/2013	00:06	LB67237A
	Cadmium	2404.10	2500.0	96.2	90 - 110	P	08/09/2013	00:06	LB67237A
	Chromium	988.62	1000.0	98.9	90 - 110	P	08/09/2013	00:06	LB67237A
	Copper	1216.20	1250.0	97.3	90 - 110	P	08/09/2013	00:06	LB67237A
	Lead	4783.40	5000.0	95.7	90 - 110	P	08/09/2013	00:06	LB67237A
	Manganese	2460.90	2500.0	98.4	90 - 110	P	08/09/2013	00:06	LB67237A
	Nickel	2416.70	2500.0	96.7	90 - 110	P	08/09/2013	00:06	LB67237A
	Selenium	4834.20	5000.0	96.7	90 - 110	P	08/09/2013	00:06	LB67237A
	Silver	1209.50	1250.0	96.8	90 - 110	P	08/09/2013	00:06	LB67237A
	Zinc	2611.90	2500.0	104.5	90 - 110	P	08/09/2013	00:06	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV07	Arsenic	18.99	20.0	95.0	70 - 130	P	08/09/2013	00:09	LB67237A
	Barium	104.94	100.0	104.9	70 - 130	P	08/09/2013	00:09	LB67237A
	Beryllium	5.66	6.0	94.3	70 - 130	P	08/09/2013	00:09	LB67237A
	Cadmium	5.76	6.0	96.0	70 - 130	P	08/09/2013	00:09	LB67237A
	Chromium	9.74	10.0	97.4	70 - 130	P	08/09/2013	00:09	LB67237A
	Copper	20.03	20.0	100.2	70 - 130	P	08/09/2013	00:09	LB67237A
	Lead	12.03	12.0	100.2	70 - 130	P	08/09/2013	00:09	LB67237A
	Manganese	23.03	20.0	115.2	70 - 130	P	08/09/2013	00:09	LB67237A
	Nickel	37.57	40.0	93.9	70 - 130	P	08/09/2013	00:09	LB67237A
	Selenium	19.53	20.0	97.6	70 - 130	P	08/09/2013	00:09	LB67237A
	Silver	8.99	10.0	89.9	70 - 130	P	08/09/2013	00:09	LB67237A
	Zinc	43.52	40.0	108.8	70 - 130	P	08/09/2013	00:09	LB67237A
CCV09	Arsenic	4725.20	5000.0	94.5	90 - 110	P	08/09/2013	00:51	LB67237A
	Barium	9953.60	10000.0	99.5	90 - 110	P	08/09/2013	00:51	LB67237A
	Beryllium	243.90	250.0	97.6	90 - 110	P	08/09/2013	00:51	LB67237A
	Cadmium	2359.30	2500.0	94.4	90 - 110	P	08/09/2013	00:51	LB67237A
	Chromium	1000.80	1000.0	100.1	90 - 110	P	08/09/2013	00:51	LB67237A
	Copper	1208.20	1250.0	96.7	90 - 110	P	08/09/2013	00:51	LB67237A
	Lead	4664.00	5000.0	93.3	90 - 110	P	08/09/2013	00:51	LB67237A
	Manganese	2474.50	2500.0	99.0	90 - 110	P	08/09/2013	00:51	LB67237A
	Nickel	2390.90	2500.0	95.6	90 - 110	P	08/09/2013	00:51	LB67237A
	Selenium	4805.00	5000.0	96.1	90 - 110	P	08/09/2013	00:51	LB67237A
	Silver	1210.20	1250.0	96.8	90 - 110	P	08/09/2013	00:51	LB67237A
	Zinc	2590.20	2500.0	103.6	90 - 110	P	08/09/2013	00:51	LB67237A
LLCCV08	Arsenic	20.92	20.0	104.6	70 - 130	P	08/09/2013	00:54	LB67237A
	Barium	102.27	100.0	102.3	70 - 130	P	08/09/2013	00:54	LB67237A
	Beryllium	5.62	6.0	93.7	70 - 130	P	08/09/2013	00:54	LB67237A
	Cadmium	5.80	6.0	96.7	70 - 130	P	08/09/2013	00:54	LB67237A
	Chromium	10.04	10.0	100.4	70 - 130	P	08/09/2013	00:54	LB67237A
	Copper	19.62	20.0	98.1	70 - 130	P	08/09/2013	00:54	LB67237A
	Lead	11.49	12.0	95.8	70 - 130	P	08/09/2013	00:54	LB67237A
	Manganese	20.58	20.0	102.9	70 - 130	P	08/09/2013	00:54	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV08	Nickel	37.25	40.0	93.1	70 - 130	P	08/09/2013	00:54	LB67237A
	Selenium	20.73	20.0	103.6	70 - 130	P	08/09/2013	00:54	LB67237A
	Silver	9.62	10.0	96.2	70 - 130	P	08/09/2013	00:54	LB67237A
	Zinc	41.53	40.0	103.8	70 - 130	P	08/09/2013	00:54	LB67237A
CCV10	Arsenic	4721.90	5000.0	94.4	90 - 110	P	08/09/2013	01:36	LB67237A
	Barium	10075.00	10000.0	100.8	90 - 110	P	08/09/2013	01:36	LB67237A
	Beryllium	245.31	250.0	98.1	90 - 110	P	08/09/2013	01:36	LB67237A
	Cadmium	2358.20	2500.0	94.3	90 - 110	P	08/09/2013	01:36	LB67237A
	Chromium	1016.10	1000.0	101.6	90 - 110	P	08/09/2013	01:36	LB67237A
	Copper	1211.10	1250.0	96.9	90 - 110	P	08/09/2013	01:36	LB67237A
	Lead	4639.60	5000.0	92.8	90 - 110	P	08/09/2013	01:36	LB67237A
	Manganese	2504.90	2500.0	100.2	90 - 110	P	08/09/2013	01:36	LB67237A
	Nickel	2400.10	2500.0	96.0	90 - 110	P	08/09/2013	01:36	LB67237A
	Selenium	4814.60	5000.0	96.3	90 - 110	P	08/09/2013	01:36	LB67237A
	Silver	1220.80	1250.0	97.7	90 - 110	P	08/09/2013	01:36	LB67237A
	Zinc	2572.70	2500.0	102.9	90 - 110	P	08/09/2013	01:36	LB67237A
LLCCV09	Arsenic	19.41	20.0	97.0	70 - 130	P	08/09/2013	01:39	LB67237A
	Barium	102.90	100.0	102.9	70 - 130	P	08/09/2013	01:39	LB67237A
	Beryllium	5.77	6.0	96.2	70 - 130	P	08/09/2013	01:39	LB67237A
	Cadmium	6.28	6.0	104.7	70 - 130	P	08/09/2013	01:39	LB67237A
	Chromium	9.67	10.0	96.7	70 - 130	P	08/09/2013	01:39	LB67237A
	Copper	19.95	20.0	99.8	70 - 130	P	08/09/2013	01:39	LB67237A
	Lead	13.53	12.0	112.8	70 - 130	P	08/09/2013	01:39	LB67237A
	Manganese	20.30	20.0	101.5	70 - 130	P	08/09/2013	01:39	LB67237A
	Nickel	37.60	40.0	94.0	70 - 130	P	08/09/2013	01:39	LB67237A
	Selenium	21.09	20.0	105.4	70 - 130	P	08/09/2013	01:39	LB67237A
	Silver	10.00	10.0	100.0	70 - 130	P	08/09/2013	01:39	LB67237A
	Zinc	42.06	40.0	105.2	70 - 130	P	08/09/2013	01:39	LB67237A
CCV11	Arsenic	4698.00	5000.0	94.0	90 - 110	P	08/09/2013	02:21	LB67237A
	Barium	9837.80	10000.0	98.4	90 - 110	P	08/09/2013	02:21	LB67237A
	Beryllium	245.27	250.0	98.1	90 - 110	P	08/09/2013	02:21	LB67237A
	Cadmium	2347.80	2500.0	93.9	90 - 110	P	08/09/2013	02:21	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Chromium	1013.70	1000.0	101.4	90 - 110	P	08/09/2013	02:21	LB67237A
	Copper	1205.90	1250.0	96.5	90 - 110	P	08/09/2013	02:21	LB67237A
	Lead	4604.60	5000.0	92.1	90 - 110	P	08/09/2013	02:21	LB67237A
	Manganese	2493.10	2500.0	99.7	90 - 110	P	08/09/2013	02:21	LB67237A
	Nickel	2397.20	2500.0	95.9	90 - 110	P	08/09/2013	02:21	LB67237A
	Selenium	4803.20	5000.0	96.1	90 - 110	P	08/09/2013	02:21	LB67237A
	Silver	1219.40	1250.0	97.6	90 - 110	P	08/09/2013	02:21	LB67237A
	Zinc	2506.80	2500.0	100.3	90 - 110	P	08/09/2013	02:21	LB67237A
LCCV10	Arsenic	19.23	20.0	96.2	70 - 130	P	08/09/2013	02:24	LB67237A
	Barium	105.53	100.0	105.5	70 - 130	P	08/09/2013	02:24	LB67237A
	Beryllium	5.82	6.0	97.0	70 - 130	P	08/09/2013	02:24	LB67237A
	Cadmium	5.45	6.0	90.8	70 - 130	P	08/09/2013	02:24	LB67237A
	Chromium	10.14	10.0	101.4	70 - 130	P	08/09/2013	02:24	LB67237A
	Copper	19.63	20.0	98.2	70 - 130	P	08/09/2013	02:24	LB67237A
	Lead	11.60	12.0	96.7	70 - 130	P	08/09/2013	02:24	LB67237A
	Manganese	21.50	20.0	107.5	70 - 130	P	08/09/2013	02:24	LB67237A
	Nickel	37.01	40.0	92.5	70 - 130	P	08/09/2013	02:24	LB67237A
	Selenium	18.29	20.0	91.4	70 - 130	P	08/09/2013	02:24	LB67237A
	Silver	9.84	10.0	98.4	70 - 130	P	08/09/2013	02:24	LB67237A
	Zinc	41.36	40.0	103.4	70 - 130	P	08/09/2013	02:24	LB67237A
CCV12	Arsenic	4670.00	5000.0	93.4	90 - 110	P	08/09/2013	02:45	LB67237A
	Barium	9820.50	10000.0	98.2	90 - 110	P	08/09/2013	02:45	LB67237A
	Beryllium	243.66	250.0	97.5	90 - 110	P	08/09/2013	02:45	LB67237A
	Cadmium	2325.20	2500.0	93.0	90 - 110	P	08/09/2013	02:45	LB67237A
	Chromium	1007.10	1000.0	100.7	90 - 110	P	08/09/2013	02:45	LB67237A
	Copper	1202.30	1250.0	96.2	90 - 110	P	08/09/2013	02:45	LB67237A
	Lead	4563.50	5000.0	91.3	90 - 110	P	08/09/2013	02:45	LB67237A
	Manganese	2480.20	2500.0	99.2	90 - 110	P	08/09/2013	02:45	LB67237A
	Nickel	2372.70	2500.0	94.9	90 - 110	P	08/09/2013	02:45	LB67237A
	Selenium	4776.00	5000.0	95.5	90 - 110	P	08/09/2013	02:45	LB67237A
	Silver	1213.60	1250.0	97.1	90 - 110	P	08/09/2013	02:45	LB67237A
	Zinc	2552.10	2500.0	102.1	90 - 110	P	08/09/2013	02:45	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV11	Arsenic	19.22	20.0	96.1	70 - 130	P	08/09/2013	02:49	LB67237A
	Barium	95.47	100.0	95.5	70 - 130	P	08/09/2013	02:49	LB67237A
	Beryllium	5.60	6.0	93.3	70 - 130	P	08/09/2013	02:49	LB67237A
	Cadmium	5.18	6.0	86.3	70 - 130	P	08/09/2013	02:49	LB67237A
	Chromium	10.00	10.0	100.0	70 - 130	P	08/09/2013	02:49	LB67237A
	Copper	19.60	20.0	98.0	70 - 130	P	08/09/2013	02:49	LB67237A
	Lead	10.70	12.0	89.2	70 - 130	P	08/09/2013	02:49	LB67237A
	Manganese	19.51	20.0	97.6	70 - 130	P	08/09/2013	02:49	LB67237A
	Nickel	36.76	40.0	91.9	70 - 130	P	08/09/2013	02:49	LB67237A
	Selenium	19.10	20.0	95.5	70 - 130	P	08/09/2013	02:49	LB67237A
	Silver	9.71	10.0	97.1	70 - 130	P	08/09/2013	02:49	LB67237A
	Zinc	38.43	40.0	96.1	70 - 130	P	08/09/2013	02:49	LB67237A

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1050.86	999.0	105.2	90 - 110	P	08/02/2013	13:24	LB67158
	Barium	544.49	503.0	108.2	90 - 110	P	08/02/2013	13:24	LB67158
	Beryllium	516.54	495.0	104.4	90 - 110	P	08/02/2013	13:24	LB67158
	Cadmium	520.40	496.0	104.9	90 - 110	P	08/02/2013	13:24	LB67158
	Chromium	506.06	490.0	103.3	90 - 110	P	08/02/2013	13:24	LB67158
	Copper	526.80	492.0	107.1	90 - 110	P	08/02/2013	13:24	LB67158
	Lead	1049.48	1002.0	104.7	90 - 110	P	08/02/2013	13:24	LB67158
	Manganese	523.66	499.0	104.9	90 - 110	P	08/02/2013	13:24	LB67158
	Nickel	533.60	503.0	106.1	90 - 110	P	08/02/2013	13:24	LB67158
	Selenium	1054.76	1003.0	105.2	90 - 110	P	08/02/2013	13:24	LB67158
	Silver	495.61	501.0	98.9	90 - 110	P	08/02/2013	13:24	LB67158
	Zinc	1040.75	1025.0	101.5	90 - 110	P	08/02/2013	13:24	LB67158
LLICV01	Arsenic	24.23	20.0	121.2	70 - 130	P	08/02/2013	13:27	LB67158
	Barium	102.21	100.0	102.2	70 - 130	P	08/02/2013	13:27	LB67158
	Beryllium	5.42	6.0	90.3	70 - 130	P	08/02/2013	13:27	LB67158
	Cadmium	6.07	6.0	101.2	70 - 130	P	08/02/2013	13:27	LB67158
	Chromium	9.79	10.0	97.9	70 - 130	P	08/02/2013	13:27	LB67158
	Copper	19.80	20.0	99.0	70 - 130	P	08/02/2013	13:27	LB67158
	Lead	11.92	12.0	99.3	70 - 130	P	08/02/2013	13:27	LB67158
	Manganese	19.42	20.0	97.1	70 - 130	P	08/02/2013	13:27	LB67158
	Nickel	39.85	40.0	99.6	70 - 130	P	08/02/2013	13:27	LB67158
	Selenium	20.72	20.0	103.6	70 - 130	P	08/02/2013	13:27	LB67158
	Silver	9.67	10.0	96.7	70 - 130	P	08/02/2013	13:27	LB67158
	Zinc	36.44	40.0	91.1	70 - 130	P	08/02/2013	13:27	LB67158
CCV01	Arsenic	5165.59	5000.0	103.3	90 - 110	P	08/02/2013	13:51	LB67158
	Barium	10254.71	10000.0	102.5	90 - 110	P	08/02/2013	13:51	LB67158
	Beryllium	254.69	250.0	101.9	90 - 110	P	08/02/2013	13:51	LB67158
	Cadmium	2583.28	2500.0	103.3	90 - 110	P	08/02/2013	13:51	LB67158
	Chromium	998.83	1000.0	99.9	90 - 110	P	08/02/2013	13:51	LB67158
	Copper	1261.10	1250.0	100.9	90 - 110	P	08/02/2013	13:51	LB67158
	Lead	5157.35	5000.0	103.1	90 - 110	P	08/02/2013	13:51	LB67158
	Manganese	2537.25	2500.0	101.5	90 - 110	P	08/02/2013	13:51	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Nickel	2581.67	2500.0	103.3	90 - 110	P	08/02/2013	13:51	LB67158
	Selenium	5162.37	5000.0	103.2	90 - 110	P	08/02/2013	13:51	LB67158
	Silver	1229.38	1250.0	98.4	90 - 110	P	08/02/2013	13:51	LB67158
	Zinc	2467.42	2500.0	98.7	90 - 110	P	08/02/2013	13:51	LB67158
LLCCV01	Arsenic	22.58	20.0	112.9	70 - 130	P	08/02/2013	13:55	LB67158
	Barium	106.78	100.0	106.8	70 - 130	P	08/02/2013	13:55	LB67158
	Beryllium	5.82	6.0	97.0	70 - 130	P	08/02/2013	13:55	LB67158
	Cadmium	5.97	6.0	99.5	70 - 130	P	08/02/2013	13:55	LB67158
	Chromium	9.92	10.0	99.2	70 - 130	P	08/02/2013	13:55	LB67158
	Copper	20.61	20.0	103.0	70 - 130	P	08/02/2013	13:55	LB67158
	Lead	12.20	12.0	101.7	70 - 130	P	08/02/2013	13:55	LB67158
	Manganese	20.78	20.0	103.9	70 - 130	P	08/02/2013	13:55	LB67158
	Nickel	40.40	40.0	101.0	70 - 130	P	08/02/2013	13:55	LB67158
	Selenium	18.95	20.0	94.8	70 - 130	P	08/02/2013	13:55	LB67158
	Silver	9.82	10.0	98.2	70 - 130	P	08/02/2013	13:55	LB67158
	Zinc	46.19	40.0	115.5	70 - 130	P	08/02/2013	13:55	LB67158
CCV02	Arsenic	5169.34	5000.0	103.4	90 - 110	P	08/02/2013	14:36	LB67158
	Barium	10174.80	10000.0	101.7	90 - 110	P	08/02/2013	14:36	LB67158
	Beryllium	252.70	250.0	101.1	90 - 110	P	08/02/2013	14:36	LB67158
	Cadmium	2582.57	2500.0	103.3	90 - 110	P	08/02/2013	14:36	LB67158
	Chromium	998.42	1000.0	99.8	90 - 110	P	08/02/2013	14:36	LB67158
	Copper	1240.91	1250.0	99.3	90 - 110	P	08/02/2013	14:36	LB67158
	Lead	5180.42	5000.0	103.6	90 - 110	P	08/02/2013	14:36	LB67158
	Manganese	2495.93	2500.0	99.8	90 - 110	P	08/02/2013	14:36	LB67158
	Nickel	2574.91	2500.0	103.0	90 - 110	P	08/02/2013	14:36	LB67158
	Selenium	5179.47	5000.0	103.6	90 - 110	P	08/02/2013	14:36	LB67158
	Silver	1231.07	1250.0	98.5	90 - 110	P	08/02/2013	14:36	LB67158
	Zinc	2507.44	2500.0	100.3	90 - 110	P	08/02/2013	14:36	LB67158
LLCCV02	Arsenic	22.89	20.0	114.4	70 - 130	P	08/02/2013	14:39	LB67158
	Barium	105.63	100.0	105.6	70 - 130	P	08/02/2013	14:39	LB67158
	Beryllium	5.74	6.0	95.7	70 - 130	P	08/02/2013	14:39	LB67158
	Cadmium	6.26	6.0	104.3	70 - 130	P	08/02/2013	14:39	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV02	Chromium	10.08	10.0	100.8	70 - 130	P	08/02/2013	14:39	LB67158
	Copper	20.59	20.0	103.0	70 - 130	P	08/02/2013	14:39	LB67158
	Lead	11.94	12.0	99.5	70 - 130	P	08/02/2013	14:39	LB67158
	Manganese	20.17	20.0	100.8	70 - 130	P	08/02/2013	14:39	LB67158
	Nickel	40.49	40.0	101.2	70 - 130	P	08/02/2013	14:39	LB67158
	Selenium	21.46	20.0	107.3	70 - 130	P	08/02/2013	14:39	LB67158
	Silver	9.81	10.0	98.1	70 - 130	P	08/02/2013	14:39	LB67158
	Zinc	43.68	40.0	109.2	70 - 130	P	08/02/2013	14:39	LB67158
CCV03	Arsenic	5452.79	5000.0	109.1	90 - 110	P	08/02/2013	15:19	LB67158
	Barium	10114.17	10000.0	101.1	90 - 110	P	08/02/2013	15:19	LB67158
	Beryllium	247.87	250.0	99.1	90 - 110	P	08/02/2013	15:19	LB67158
	Cadmium	2719.82	2500.0	108.8	90 - 110	P	08/02/2013	15:19	LB67158
	Chromium	986.48	1000.0	98.6	90 - 110	P	08/02/2013	15:19	LB67158
	Copper	1240.33	1250.0	99.2	90 - 110	P	08/02/2013	15:19	LB67158
	Lead	5459.14	5000.0	109.2	90 - 110	P	08/02/2013	15:19	LB67158
	Manganese	2487.07	2500.0	99.5	90 - 110	P	08/02/2013	15:19	LB67158
	Nickel	2721.88	2500.0	108.9	90 - 110	P	08/02/2013	15:19	LB67158
	Selenium	5476.06	5000.0	109.5	90 - 110	P	08/02/2013	15:19	LB67158
	Silver	1222.09	1250.0	97.8	90 - 110	P	08/02/2013	15:19	LB67158
	Zinc	2425.93	2500.0	97.0	90 - 110	P	08/02/2013	15:19	LB67158
LLCCV03	Arsenic	23.50	20.0	117.5	70 - 130	P	08/02/2013	15:23	LB67158
	Barium	107.82	100.0	107.8	70 - 130	P	08/02/2013	15:23	LB67158
	Beryllium	5.72	6.0	95.3	70 - 130	P	08/02/2013	15:23	LB67158
	Cadmium	6.77	6.0	112.8	70 - 130	P	08/02/2013	15:23	LB67158
	Chromium	10.19	10.0	101.9	70 - 130	P	08/02/2013	15:23	LB67158
	Copper	21.22	20.0	106.1	70 - 130	P	08/02/2013	15:23	LB67158
	Lead	13.57	12.0	113.1	70 - 130	P	08/02/2013	15:23	LB67158
	Manganese	21.37	20.0	106.8	70 - 130	P	08/02/2013	15:23	LB67158
	Nickel	41.06	40.0	102.6	70 - 130	P	08/02/2013	15:23	LB67158
	Selenium	22.55	20.0	112.8	70 - 130	P	08/02/2013	15:23	LB67158
	Silver	10.01	10.0	100.1	70 - 130	P	08/02/2013	15:23	LB67158
	Zinc	36.78	40.0	92.0	70 - 130	P	08/02/2013	15:23	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	5187.74	5000.0	103.8	90 - 110	P	08/02/2013	15:50	LB67158
	Barium	10173.63	10000.0	101.7	90 - 110	P	08/02/2013	15:50	LB67158
	Beryllium	250.92	250.0	100.4	90 - 110	P	08/02/2013	15:50	LB67158
	Cadmium	2586.92	2500.0	103.5	90 - 110	P	08/02/2013	15:50	LB67158
	Chromium	1001.46	1000.0	100.1	90 - 110	P	08/02/2013	15:50	LB67158
	Copper	1252.88	1250.0	100.2	90 - 110	P	08/02/2013	15:50	LB67158
	Lead	5188.10	5000.0	103.8	90 - 110	P	08/02/2013	15:50	LB67158
	Manganese	2526.75	2500.0	101.1	90 - 110	P	08/02/2013	15:50	LB67158
	Nickel	2583.52	2500.0	103.3	90 - 110	P	08/02/2013	15:50	LB67158
	Selenium	5203.28	5000.0	104.1	90 - 110	P	08/02/2013	15:50	LB67158
	Silver	1247.49	1250.0	99.8	90 - 110	P	08/02/2013	15:50	LB67158
	Zinc	2441.78	2500.0	97.7	90 - 110	P	08/02/2013	15:50	LB67158
LLCCV04	Arsenic	24.36	20.0	121.8	70 - 130	P	08/02/2013	15:53	LB67158
	Barium	106.05	100.0	106.0	70 - 130	P	08/02/2013	15:53	LB67158
	Beryllium	5.14	6.0	85.7	70 - 130	P	08/02/2013	15:53	LB67158
	Cadmium	6.70	6.0	111.7	70 - 130	P	08/02/2013	15:53	LB67158
	Chromium	10.04	10.0	100.4	70 - 130	P	08/02/2013	15:53	LB67158
	Copper	21.84	20.0	109.2	70 - 130	P	08/02/2013	15:53	LB67158
	Lead	13.35	12.0	111.2	70 - 130	P	08/02/2013	15:53	LB67158
	Manganese	20.82	20.0	104.1	70 - 130	P	08/02/2013	15:53	LB67158
	Nickel	41.22	40.0	103.0	70 - 130	P	08/02/2013	15:53	LB67158
	Selenium	21.54	20.0	107.7	70 - 130	P	08/02/2013	15:53	LB67158
	Silver	9.92	10.0	99.2	70 - 130	P	08/02/2013	15:53	LB67158
	Zinc	34.71	40.0	86.8	70 - 130	P	08/02/2013	15:53	LB67158
CCV05	Arsenic	5117.42	5000.0	102.3	90 - 110	P	08/02/2013	16:32	LB67158
	Barium	10012.92	10000.0	100.1	90 - 110	P	08/02/2013	16:32	LB67158
	Beryllium	243.91	250.0	97.6	90 - 110	P	08/02/2013	16:32	LB67158
	Cadmium	2548.24	2500.0	101.9	90 - 110	P	08/02/2013	16:32	LB67158
	Chromium	987.02	1000.0	98.7	90 - 110	P	08/02/2013	16:32	LB67158
	Copper	1240.19	1250.0	99.2	90 - 110	P	08/02/2013	16:32	LB67158
	Lead	5106.62	5000.0	102.1	90 - 110	P	08/02/2013	16:32	LB67158
	Manganese	2489.69	2500.0	99.6	90 - 110	P	08/02/2013	16:32	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2551.85	2500.0	102.1	90 - 110	P	08/02/2013	16:32	LB67158
	Selenium	5133.15	5000.0	102.7	90 - 110	P	08/02/2013	16:32	LB67158
	Silver	1228.01	1250.0	98.2	90 - 110	P	08/02/2013	16:32	LB67158
	Zinc	2456.29	2500.0	98.3	90 - 110	P	08/02/2013	16:32	LB67158
LLCCV05	Arsenic	22.59	20.0	113.0	70 - 130	P	08/02/2013	16:36	LB67158
	Barium	106.65	100.0	106.6	70 - 130	P	08/02/2013	16:36	LB67158
	Beryllium	6.57	6.0	109.5	70 - 130	P	08/02/2013	16:36	LB67158
	Cadmium	6.90	6.0	115.0	70 - 130	P	08/02/2013	16:36	LB67158
	Chromium	10.35	10.0	103.5	70 - 130	P	08/02/2013	16:36	LB67158
	Copper	21.42	20.0	107.1	70 - 130	P	08/02/2013	16:36	LB67158
	Lead	13.58	12.0	113.2	70 - 130	P	08/02/2013	16:36	LB67158
	Manganese	21.15	20.0	105.8	70 - 130	P	08/02/2013	16:36	LB67158
	Nickel	40.73	40.0	101.8	70 - 130	P	08/02/2013	16:36	LB67158
	Selenium	22.71	20.0	113.6	70 - 130	P	08/02/2013	16:36	LB67158
	Silver	10.00	10.0	100.0	70 - 130	P	08/02/2013	16:36	LB67158
	Zinc	41.85	40.0	104.6	70 - 130	P	08/02/2013	16:36	LB67158
CCV06	Arsenic	5160.69	5000.0	103.2	90 - 110	P	08/02/2013	17:48	LB67158
	Barium	10318.68	10000.0	103.2	90 - 110	P	08/02/2013	17:48	LB67158
	Beryllium	248.51	250.0	99.4	90 - 110	P	08/02/2013	17:48	LB67158
	Cadmium	2548.42	2500.0	101.9	90 - 110	P	08/02/2013	17:48	LB67158
	Chromium	990.42	1000.0	99.0	90 - 110	P	08/02/2013	17:48	LB67158
	Copper	1259.80	1250.0	100.8	90 - 110	P	08/02/2013	17:48	LB67158
	Lead	5131.48	5000.0	102.6	90 - 110	P	08/02/2013	17:48	LB67158
	Manganese	2523.68	2500.0	100.9	90 - 110	P	08/02/2013	17:48	LB67158
	Nickel	2556.71	2500.0	102.3	90 - 110	P	08/02/2013	17:48	LB67158
	Selenium	5197.94	5000.0	104.0	90 - 110	P	08/02/2013	17:48	LB67158
	Silver	1243.76	1250.0	99.5	90 - 110	P	08/02/2013	17:48	LB67158
	Zinc	2486.11	2500.0	99.4	90 - 110	P	08/02/2013	17:48	LB67158
LLCCV06	Arsenic	19.45	20.0	97.2	70 - 130	P	08/02/2013	17:52	LB67158
	Barium	107.14	100.0	107.1	70 - 130	P	08/02/2013	17:52	LB67158
	Beryllium	5.39	6.0	89.8	70 - 130	P	08/02/2013	17:52	LB67158
	Cadmium	6.57	6.0	109.5	70 - 130	P	08/02/2013	17:52	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Chromium	10.19	10.0	101.9	70 - 130	P	08/02/2013	17:52	LB67158
	Copper	20.93	20.0	104.6	70 - 130	P	08/02/2013	17:52	LB67158
	Lead	12.97	12.0	108.1	70 - 130	P	08/02/2013	17:52	LB67158
	Manganese	21.51	20.0	107.6	70 - 130	P	08/02/2013	17:52	LB67158
	Nickel	40.04	40.0	100.1	70 - 130	P	08/02/2013	17:52	LB67158
	Selenium	22.12	20.0	110.6	70 - 130	P	08/02/2013	17:52	LB67158
	Silver	10.18	10.0	101.8	70 - 130	P	08/02/2013	17:52	LB67158
	Zinc	39.89	40.0	99.7	70 - 130	P	08/02/2013	17:52	LB67158
CCV07	Arsenic	5182.66	5000.0	103.7	90 - 110	P	08/02/2013	18:43	LB67158
	Barium	10096.38	10000.0	101.0	90 - 110	P	08/02/2013	18:43	LB67158
	Beryllium	238.23	250.0	95.3	90 - 110	P	08/02/2013	18:43	LB67158
	Cadmium	2554.85	2500.0	102.2	90 - 110	P	08/02/2013	18:43	LB67158
	Chromium	983.05	1000.0	98.3	90 - 110	P	08/02/2013	18:43	LB67158
	Copper	1222.42	1250.0	97.8	90 - 110	P	08/02/2013	18:43	LB67158
	Lead	5148.86	5000.0	103.0	90 - 110	P	08/02/2013	18:43	LB67158
	Manganese	2435.79	2500.0	97.4	90 - 110	P	08/02/2013	18:43	LB67158
	Nickel	2567.26	2500.0	102.7	90 - 110	P	08/02/2013	18:43	LB67158
	Selenium	5195.06	5000.0	103.9	90 - 110	P	08/02/2013	18:43	LB67158
	Silver	1238.16	1250.0	99.1	90 - 110	P	08/02/2013	18:43	LB67158
	Zinc	2279.62	2500.0	91.2	90 - 110	P	08/02/2013	18:43	LB67158
LLCCV07	Arsenic	22.42	20.0	112.1	70 - 130	P	08/02/2013	18:46	LB67158
	Barium	106.88	100.0	106.9	70 - 130	P	08/02/2013	18:46	LB67158
	Beryllium	5.44	6.0	90.7	70 - 130	P	08/02/2013	18:46	LB67158
	Cadmium	6.51	6.0	108.5	70 - 130	P	08/02/2013	18:46	LB67158
	Chromium	10.12	10.0	101.2	70 - 130	P	08/02/2013	18:46	LB67158
	Copper	21.67	20.0	108.4	70 - 130	P	08/02/2013	18:46	LB67158
	Lead	13.48	12.0	112.3	70 - 130	P	08/02/2013	18:46	LB67158
	Manganese	20.77	20.0	103.8	70 - 130	P	08/02/2013	18:46	LB67158
	Nickel	40.89	40.0	102.2	70 - 130	P	08/02/2013	18:46	LB67158
	Selenium	21.39	20.0	107.0	70 - 130	P	08/02/2013	18:46	LB67158
	Silver	9.64	10.0	96.4	70 - 130	P	08/02/2013	18:46	LB67158
	Zinc	38.54	40.0	96.4	70 - 130	P	08/02/2013	18:46	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Arsenic	5142.80	5000.0	102.9	90 - 110	P	08/02/2013	19:27	LB67158
	Barium	10281.80	10000.0	102.8	90 - 110	P	08/02/2013	19:27	LB67158
	Beryllium	246.00	250.0	98.4	90 - 110	P	08/02/2013	19:27	LB67158
	Cadmium	2567.83	2500.0	102.7	90 - 110	P	08/02/2013	19:27	LB67158
	Chromium	985.38	1000.0	98.5	90 - 110	P	08/02/2013	19:27	LB67158
	Copper	1246.46	1250.0	99.7	90 - 110	P	08/02/2013	19:27	LB67158
	Lead	5162.33	5000.0	103.2	90 - 110	P	08/02/2013	19:27	LB67158
	Manganese	2494.90	2500.0	99.8	90 - 110	P	08/02/2013	19:27	LB67158
	Nickel	2565.59	2500.0	102.6	90 - 110	P	08/02/2013	19:27	LB67158
	Selenium	5176.85	5000.0	103.5	90 - 110	P	08/02/2013	19:27	LB67158
	Silver	1229.75	1250.0	98.4	90 - 110	P	08/02/2013	19:27	LB67158
	Zinc	2357.90	2500.0	94.3	90 - 110	P	08/02/2013	19:27	LB67158
LLCCV08	Arsenic	22.26	20.0	111.3	70 - 130	P	08/02/2013	19:31	LB67158
	Barium	105.23	100.0	105.2	70 - 130	P	08/02/2013	19:31	LB67158
	Beryllium	5.82	6.0	97.0	70 - 130	P	08/02/2013	19:31	LB67158
	Cadmium	5.94	6.0	99.0	70 - 130	P	08/02/2013	19:31	LB67158
	Chromium	9.80	10.0	98.0	70 - 130	P	08/02/2013	19:31	LB67158
	Copper	20.40	20.0	102.0	70 - 130	P	08/02/2013	19:31	LB67158
	Lead	12.72	12.0	106.0	70 - 130	P	08/02/2013	19:31	LB67158
	Manganese	20.89	20.0	104.4	70 - 130	P	08/02/2013	19:31	LB67158
	Nickel	39.92	40.0	99.8	70 - 130	P	08/02/2013	19:31	LB67158
	Selenium	21.35	20.0	106.8	70 - 130	P	08/02/2013	19:31	LB67158
	Silver	9.94	10.0	99.4	70 - 130	P	08/02/2013	19:31	LB67158
	Zinc	42.15	40.0	105.4	70 - 130	P	08/02/2013	19:31	LB67158
CCV09	Arsenic	5074.05	5000.0	101.5	90 - 110	P	08/02/2013	20:13	LB67158
	Barium	10003.68	10000.0	100.0	90 - 110	P	08/02/2013	20:13	LB67158
	Beryllium	244.06	250.0	97.6	90 - 110	P	08/02/2013	20:13	LB67158
	Cadmium	2542.62	2500.0	101.7	90 - 110	P	08/02/2013	20:13	LB67158
	Chromium	980.18	1000.0	98.0	90 - 110	P	08/02/2013	20:13	LB67158
	Copper	1225.34	1250.0	98.0	90 - 110	P	08/02/2013	20:13	LB67158
	Lead	5102.67	5000.0	102.1	90 - 110	P	08/02/2013	20:13	LB67158
	Manganese	2463.00	2500.0	98.5	90 - 110	P	08/02/2013	20:13	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Nickel	2542.41	2500.0	101.7	90 - 110	P	08/02/2013	20:13	LB67158
	Selenium	5090.43	5000.0	101.8	90 - 110	P	08/02/2013	20:13	LB67158
	Silver	1218.52	1250.0	97.5	90 - 110	P	08/02/2013	20:13	LB67158
	Zinc	2366.93	2500.0	94.7	90 - 110	P	08/02/2013	20:13	LB67158
LLCCV09	Arsenic	22.18	20.0	110.9	70 - 130	P	08/02/2013	20:16	LB67158
	Barium	106.05	100.0	106.0	70 - 130	P	08/02/2013	20:16	LB67158
	Beryllium	5.86	6.0	97.7	70 - 130	P	08/02/2013	20:16	LB67158
	Cadmium	5.99	6.0	99.8	70 - 130	P	08/02/2013	20:16	LB67158
	Chromium	10.05	10.0	100.5	70 - 130	P	08/02/2013	20:16	LB67158
	Copper	22.09	20.0	110.4	70 - 130	P	08/02/2013	20:16	LB67158
	Lead	11.41	12.0	95.1	70 - 130	P	08/02/2013	20:16	LB67158
	Manganese	19.64	20.0	98.2	70 - 130	P	08/02/2013	20:16	LB67158
	Nickel	40.81	40.0	102.0	70 - 130	P	08/02/2013	20:16	LB67158
	Selenium	20.40	20.0	102.0	70 - 130	P	08/02/2013	20:16	LB67158
	Silver	10.02	10.0	100.2	70 - 130	P	08/02/2013	20:16	LB67158
	Zinc	43.50	40.0	108.8	70 - 130	P	08/02/2013	20:16	LB67158
CCV10	Arsenic	5128.11	5000.0	102.6	90 - 110	P	08/02/2013	20:57	LB67158
	Barium	10072.41	10000.0	100.7	90 - 110	P	08/02/2013	20:57	LB67158
	Beryllium	246.67	250.0	98.7	90 - 110	P	08/02/2013	20:57	LB67158
	Cadmium	2575.19	2500.0	103.0	90 - 110	P	08/02/2013	20:57	LB67158
	Chromium	959.57	1000.0	96.0	90 - 110	P	08/02/2013	20:57	LB67158
	Copper	1238.49	1250.0	99.1	90 - 110	P	08/02/2013	20:57	LB67158
	Lead	5132.72	5000.0	102.7	90 - 110	P	08/02/2013	20:57	LB67158
	Manganese	2489.92	2500.0	99.6	90 - 110	P	08/02/2013	20:57	LB67158
	Nickel	2568.26	2500.0	102.7	90 - 110	P	08/02/2013	20:57	LB67158
	Selenium	5137.45	5000.0	102.7	90 - 110	P	08/02/2013	20:57	LB67158
	Silver	1185.51	1250.0	94.8	90 - 110	P	08/02/2013	20:57	LB67158
	Zinc	2461.05	2500.0	98.4	90 - 110	P	08/02/2013	20:57	LB67158
LLCCV10	Arsenic	21.09	20.0	105.4	70 - 130	P	08/02/2013	21:01	LB67158
	Barium	104.98	100.0	105.0	70 - 130	P	08/02/2013	21:01	LB67158
	Beryllium	5.75	6.0	95.8	70 - 130	P	08/02/2013	21:01	LB67158
	Cadmium	5.93	6.0	98.8	70 - 130	P	08/02/2013	21:01	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV10	Chromium	9.79	10.0	97.9	70 - 130	P	08/02/2013	21:01	LB67158
	Copper	20.89	20.0	104.4	70 - 130	P	08/02/2013	21:01	LB67158
	Lead	10.87	12.0	90.6	70 - 130	P	08/02/2013	21:01	LB67158
	Manganese	20.24	20.0	101.2	70 - 130	P	08/02/2013	21:01	LB67158
	Nickel	40.65	40.0	101.6	70 - 130	P	08/02/2013	21:01	LB67158
	Selenium	20.74	20.0	103.7	70 - 130	P	08/02/2013	21:01	LB67158
	Silver	10.01	10.0	100.1	70 - 130	P	08/02/2013	21:01	LB67158
	Zinc	34.48	40.0	86.2	70 - 130	P	08/02/2013	21:01	LB67158
CCV11	Arsenic	5137.18	5000.0	102.7	90 - 110	P	08/02/2013	21:41	LB67158
	Barium	10172.77	10000.0	101.7	90 - 110	P	08/02/2013	21:41	LB67158
	Beryllium	245.01	250.0	98.0	90 - 110	P	08/02/2013	21:41	LB67158
	Cadmium	2573.16	2500.0	102.9	90 - 110	P	08/02/2013	21:41	LB67158
	Chromium	988.98	1000.0	98.9	90 - 110	P	08/02/2013	21:41	LB67158
	Copper	1242.76	1250.0	99.4	90 - 110	P	08/02/2013	21:41	LB67158
	Lead	5158.78	5000.0	103.2	90 - 110	P	08/02/2013	21:41	LB67158
	Manganese	2490.12	2500.0	99.6	90 - 110	P	08/02/2013	21:41	LB67158
	Nickel	2570.24	2500.0	102.8	90 - 110	P	08/02/2013	21:41	LB67158
	Selenium	5160.50	5000.0	103.2	90 - 110	P	08/02/2013	21:41	LB67158
	Silver	1229.18	1250.0	98.3	90 - 110	P	08/02/2013	21:41	LB67158
	Zinc	2349.05	2500.0	94.0	90 - 110	P	08/02/2013	21:41	LB67158
LLCCV11	Arsenic	17.39	20.0	87.0	70 - 130	P	08/02/2013	21:45	LB67158
	Barium	107.40	100.0	107.4	70 - 130	P	08/02/2013	21:45	LB67158
	Beryllium	5.91	6.0	98.5	70 - 130	P	08/02/2013	21:45	LB67158
	Cadmium	6.01	6.0	100.2	70 - 130	P	08/02/2013	21:45	LB67158
	Chromium	10.11	10.0	101.1	70 - 130	P	08/02/2013	21:45	LB67158
	Copper	21.05	20.0	105.2	70 - 130	P	08/02/2013	21:45	LB67158
	Lead	11.93	12.0	99.4	70 - 130	P	08/02/2013	21:45	LB67158
	Manganese	20.35	20.0	101.8	70 - 130	P	08/02/2013	21:45	LB67158
	Nickel	41.22	40.0	103.0	70 - 130	P	08/02/2013	21:45	LB67158
	Selenium	21.11	20.0	105.6	70 - 130	P	08/02/2013	21:45	LB67158
	Silver	9.82	10.0	98.2	70 - 130	P	08/02/2013	21:45	LB67158
	Zinc	44.19	40.0	110.5	70 - 130	P	08/02/2013	21:45	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Arsenic	5088.31	5000.0	101.8	90 - 110	P	08/02/2013	22:26	LB67158
	Barium	9939.85	10000.0	99.4	90 - 110	P	08/02/2013	22:26	LB67158
	Beryllium	246.55	250.0	98.6	90 - 110	P	08/02/2013	22:26	LB67158
	Cadmium	2543.36	2500.0	101.7	90 - 110	P	08/02/2013	22:26	LB67158
	Chromium	980.69	1000.0	98.1	90 - 110	P	08/02/2013	22:26	LB67158
	Copper	1238.33	1250.0	99.1	90 - 110	P	08/02/2013	22:26	LB67158
	Lead	5089.39	5000.0	101.8	90 - 110	P	08/02/2013	22:26	LB67158
	Manganese	2469.28	2500.0	98.8	90 - 110	P	08/02/2013	22:26	LB67158
	Nickel	2540.05	2500.0	101.6	90 - 110	P	08/02/2013	22:26	LB67158
	Selenium	5103.59	5000.0	102.1	90 - 110	P	08/02/2013	22:26	LB67158
	Silver	1205.70	1250.0	96.5	90 - 110	P	08/02/2013	22:26	LB67158
	Zinc	2413.93	2500.0	96.6	90 - 110	P	08/02/2013	22:26	LB67158
LLCCV12	Arsenic	24.05	20.0	120.2	70 - 130	P	08/02/2013	22:29	LB67158
	Barium	105.76	100.0	105.8	70 - 130	P	08/02/2013	22:29	LB67158
	Beryllium	5.60	6.0	93.3	70 - 130	P	08/02/2013	22:29	LB67158
	Cadmium	6.07	6.0	101.2	70 - 130	P	08/02/2013	22:29	LB67158
	Chromium	10.00	10.0	100.0	70 - 130	P	08/02/2013	22:29	LB67158
	Copper	22.04	20.0	110.2	70 - 130	P	08/02/2013	22:29	LB67158
	Lead	11.86	12.0	98.8	70 - 130	P	08/02/2013	22:29	LB67158
	Manganese	20.46	20.0	102.3	70 - 130	P	08/02/2013	22:29	LB67158
	Nickel	40.40	40.0	101.0	70 - 130	P	08/02/2013	22:29	LB67158
	Selenium	20.34	20.0	101.7	70 - 130	P	08/02/2013	22:29	LB67158
	Silver	9.74	10.0	97.4	70 - 130	P	08/02/2013	22:29	LB67158
	Zinc	44.27	40.0	110.7	70 - 130	P	08/02/2013	22:29	LB67158
CCV13	Arsenic	5104.62	5000.0	102.1	90 - 110	P	08/02/2013	23:11	LB67158
	Barium	9959.17	10000.0	99.6	90 - 110	P	08/02/2013	23:11	LB67158
	Beryllium	248.47	250.0	99.4	90 - 110	P	08/02/2013	23:11	LB67158
	Cadmium	2571.82	2500.0	102.9	90 - 110	P	08/02/2013	23:11	LB67158
	Chromium	998.95	1000.0	99.9	90 - 110	P	08/02/2013	23:11	LB67158
	Copper	1241.19	1250.0	99.3	90 - 110	P	08/02/2013	23:11	LB67158
	Lead	5096.46	5000.0	101.9	90 - 110	P	08/02/2013	23:11	LB67158
	Manganese	2498.44	2500.0	99.9	90 - 110	P	08/02/2013	23:11	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV13	Nickel	2561.93	2500.0	102.5	90 - 110	P	08/02/2013	23:11	LB67158
	Selenium	5113.48	5000.0	102.3	90 - 110	P	08/02/2013	23:11	LB67158
	Silver	1207.08	1250.0	96.6	90 - 110	P	08/02/2013	23:11	LB67158
	Zinc	2452.27	2500.0	98.1	90 - 110	P	08/02/2013	23:11	LB67158
LLCCV13	Arsenic	20.63	20.0	103.2	70 - 130	P	08/02/2013	23:14	LB67158
	Barium	104.29	100.0	104.3	70 - 130	P	08/02/2013	23:14	LB67158
	Beryllium	5.70	6.0	95.0	70 - 130	P	08/02/2013	23:14	LB67158
	Cadmium	5.94	6.0	99.0	70 - 130	P	08/02/2013	23:14	LB67158
	Chromium	9.97	10.0	99.7	70 - 130	P	08/02/2013	23:14	LB67158
	Copper	20.03	20.0	100.2	70 - 130	P	08/02/2013	23:14	LB67158
	Lead	11.86	12.0	98.8	70 - 130	P	08/02/2013	23:14	LB67158
	Manganese	19.13	20.0	95.6	70 - 130	P	08/02/2013	23:14	LB67158
	Nickel	39.68	40.0	99.2	70 - 130	P	08/02/2013	23:14	LB67158
	Selenium	20.65	20.0	103.2	70 - 130	P	08/02/2013	23:14	LB67158
	Silver	9.76	10.0	97.6	70 - 130	P	08/02/2013	23:14	LB67158
	Zinc	48.40	40.0	121.0	70 - 130	P	08/02/2013	23:14	LB67158
CCV14	Arsenic	4985.15	5000.0	99.7	90 - 110	P	08/02/2013	23:48	LB67158
	Barium	9864.41	10000.0	98.6	90 - 110	P	08/02/2013	23:48	LB67158
	Beryllium	247.29	250.0	98.9	90 - 110	P	08/02/2013	23:48	LB67158
	Cadmium	2509.72	2500.0	100.4	90 - 110	P	08/02/2013	23:48	LB67158
	Chromium	995.57	1000.0	99.6	90 - 110	P	08/02/2013	23:48	LB67158
	Copper	1234.87	1250.0	98.8	90 - 110	P	08/02/2013	23:48	LB67158
	Lead	4966.51	5000.0	99.3	90 - 110	P	08/02/2013	23:48	LB67158
	Manganese	2493.74	2500.0	99.7	90 - 110	P	08/02/2013	23:48	LB67158
	Nickel	2568.11	2500.0	102.7	90 - 110	P	08/02/2013	23:48	LB67158
	Selenium	4932.69	5000.0	98.7	90 - 110	P	08/02/2013	23:48	LB67158
	Silver	1217.03	1250.0	97.4	90 - 110	P	08/02/2013	23:48	LB67158
	Zinc	2417.21	2500.0	96.7	90 - 110	P	08/02/2013	23:48	LB67158
LLCCV14	Arsenic	19.54	20.0	97.7	70 - 130	P	08/02/2013	23:51	LB67158
	Barium	105.88	100.0	105.9	70 - 130	P	08/02/2013	23:51	LB67158
	Beryllium	6.42	6.0	107.0	70 - 130	P	08/02/2013	23:51	LB67158
	Cadmium	6.02	6.0	100.3	70 - 130	P	08/02/2013	23:51	LB67158

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV14	Chromium	10.22	10.0	102.2	70 - 130	P	08/02/2013	23:51	LB67158
	Copper	20.84	20.0	104.2	70 - 130	P	08/02/2013	23:51	LB67158
	Lead	12.49	12.0	104.1	70 - 130	P	08/02/2013	23:51	LB67158
	Manganese	19.83	20.0	99.2	70 - 130	P	08/02/2013	23:51	LB67158
	Nickel	40.79	40.0	102.0	70 - 130	P	08/02/2013	23:51	LB67158
	Selenium	18.62	20.0	93.1	70 - 130	P	08/02/2013	23:51	LB67158
	Silver	9.59	10.0	95.9	70 - 130	P	08/02/2013	23:51	LB67158
	Zinc	47.28	40.0	118.2	70 - 130	P	08/02/2013	23:51	LB67158
CV01	Arsenic	1043.07	999.0	104.4	90 - 110	P	08/05/2013	12:37	LB67176
	Barium	541.59	503.0	107.7	90 - 110	P	08/05/2013	12:37	LB67176
	Beryllium	512.26	495.0	103.5	90 - 110	P	08/05/2013	12:37	LB67176
	Cadmium	514.33	496.0	103.7	90 - 110	P	08/05/2013	12:37	LB67176
	Chromium	504.26	490.0	102.9	90 - 110	P	08/05/2013	12:37	LB67176
	Copper	528.00	492.0	107.3	90 - 110	P	08/05/2013	12:37	LB67176
	Lead	1044.89	1002.0	104.3	90 - 110	P	08/05/2013	12:37	LB67176
	Manganese	529.77	499.0	106.2	90 - 110	P	08/05/2013	12:37	LB67176
	Nickel	518.38	503.0	103.1	90 - 110	P	08/05/2013	12:37	LB67176
	Selenium	1043.95	1003.0	104.1	90 - 110	P	08/05/2013	12:37	LB67176
	Silver	497.20	501.0	99.2	90 - 110	P	08/05/2013	12:37	LB67176
	Zinc	1077.72	1025.0	105.1	90 - 110	P	08/05/2013	12:37	LB67176
LLICV01	Arsenic	20.21	20.0	101.0	70 - 130	P	08/05/2013	12:49	LB67176
	Barium	105.84	100.0	105.8	70 - 130	P	08/05/2013	12:49	LB67176
	Beryllium	5.49	6.0	91.5	70 - 130	P	08/05/2013	12:49	LB67176
	Cadmium	5.98	6.0	99.7	70 - 130	P	08/05/2013	12:49	LB67176
	Chromium	9.88	10.0	98.8	70 - 130	P	08/05/2013	12:49	LB67176
	Copper	18.63	20.0	93.2	70 - 130	P	08/05/2013	12:49	LB67176
	Lead	11.93	12.0	99.4	70 - 130	P	08/05/2013	12:49	LB67176
	Manganese	20.26	20.0	101.3	70 - 130	P	08/05/2013	12:49	LB67176
	Nickel	39.14	40.0	97.8	70 - 130	P	08/05/2013	12:49	LB67176
	Selenium	17.78	20.0	88.9	70 - 130	P	08/05/2013	12:49	LB67176
	Silver	9.87	10.0	98.7	70 - 130	P	08/05/2013	12:49	LB67176
	Zinc	50.65	40.0	126.6	70 - 130	P	08/05/2013	12:49	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	4992.44	5000.0	99.8	90 - 110	P	08/05/2013	13:12	LB67176
	Barium	10171.21	10000.0	101.7	90 - 110	P	08/05/2013	13:12	LB67176
	Beryllium	252.51	250.0	101.0	90 - 110	P	08/05/2013	13:12	LB67176
	Cadmium	2527.32	2500.0	101.1	90 - 110	P	08/05/2013	13:12	LB67176
	Chromium	1008.35	1000.0	100.8	90 - 110	P	08/05/2013	13:12	LB67176
	Copper	1260.17	1250.0	100.8	90 - 110	P	08/05/2013	13:12	LB67176
	Lead	5032.64	5000.0	100.7	90 - 110	P	08/05/2013	13:12	LB67176
	Manganese	2531.63	2500.0	101.3	90 - 110	P	08/05/2013	13:12	LB67176
	Nickel	2506.19	2500.0	100.2	90 - 110	P	08/05/2013	13:12	LB67176
	Selenium	5039.03	5000.0	100.8	90 - 110	P	08/05/2013	13:12	LB67176
	Silver	1234.73	1250.0	98.8	90 - 110	P	08/05/2013	13:12	LB67176
	Zinc	2525.11	2500.0	101.0	90 - 110	P	08/05/2013	13:12	LB67176
LLCCV01	Arsenic	22.87	20.0	114.4	70 - 130	P	08/05/2013	13:16	LB67176
	Barium	102.23	100.0	102.2	70 - 130	P	08/05/2013	13:16	LB67176
	Beryllium	5.99	6.0	99.8	70 - 130	P	08/05/2013	13:16	LB67176
	Cadmium	6.15	6.0	102.5	70 - 130	P	08/05/2013	13:16	LB67176
	Chromium	9.92	10.0	99.2	70 - 130	P	08/05/2013	13:16	LB67176
	Copper	20.07	20.0	100.4	70 - 130	P	08/05/2013	13:16	LB67176
	Lead	11.75	12.0	97.9	70 - 130	P	08/05/2013	13:16	LB67176
	Manganese	19.77	20.0	98.8	70 - 130	P	08/05/2013	13:16	LB67176
	Nickel	38.95	40.0	97.4	70 - 130	P	08/05/2013	13:16	LB67176
	Selenium	20.69	20.0	103.4	70 - 130	P	08/05/2013	13:16	LB67176
	Silver	9.62	10.0	96.2	70 - 130	P	08/05/2013	13:16	LB67176
	Zinc	45.78	40.0	114.4	70 - 130	P	08/05/2013	13:16	LB67176
LLCCV02	Arsenic	23.72	20.0	118.6	70 - 130	P	08/05/2013	14:07	LB67176
	Barium	103.57	100.0	103.6	70 - 130	P	08/05/2013	14:07	LB67176
	Beryllium	5.37	6.0	89.5	70 - 130	P	08/05/2013	14:07	LB67176
	Cadmium	7.10	6.0	118.3	70 - 130	P	08/05/2013	14:07	LB67176
	Chromium	9.94	10.0	99.4	70 - 130	P	08/05/2013	14:07	LB67176
	Copper	20.30	20.0	101.5	70 - 130	P	08/05/2013	14:07	LB67176
	Lead	14.63	12.0	121.9	70 - 130	P	08/05/2013	14:07	LB67176
	Manganese	19.51	20.0	97.6	70 - 130	P	08/05/2013	14:07	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV02	Nickel	39.59	40.0	99.0	70 - 130	P	08/05/2013	14:07	LB67176
	Selenium	18.06	20.0	90.3	70 - 130	P	08/05/2013	14:07	LB67176
	Silver	9.79	10.0	97.9	70 - 130	P	08/05/2013	14:07	LB67176
	Zinc	49.30	40.0	123.2	70 - 130	P	08/05/2013	14:07	LB67176
CCV02	Arsenic	5098.52	5000.0	102.0	90 - 110	P	08/05/2013	14:12	LB67176
	Barium	10134.14	10000.0	101.3	90 - 110	P	08/05/2013	14:12	LB67176
	Beryllium	256.42	250.0	102.6	90 - 110	P	08/05/2013	14:12	LB67176
	Cadmium	2559.76	2500.0	102.4	90 - 110	P	08/05/2013	14:12	LB67176
	Chromium	1006.82	1000.0	100.7	90 - 110	P	08/05/2013	14:12	LB67176
	Copper	1265.54	1250.0	101.2	90 - 110	P	08/05/2013	14:12	LB67176
	Lead	5101.82	5000.0	102.0	90 - 110	P	08/05/2013	14:12	LB67176
	Manganese	2517.03	2500.0	100.7	90 - 110	P	08/05/2013	14:12	LB67176
	Nickel	2499.71	2500.0	100.0	90 - 110	P	08/05/2013	14:12	LB67176
	Selenium	5114.03	5000.0	102.3	90 - 110	P	08/05/2013	14:12	LB67176
	Silver	1220.40	1250.0	97.6	90 - 110	P	08/05/2013	14:12	LB67176
	Zinc	2565.15	2500.0	102.6	90 - 110	P	08/05/2013	14:12	LB67176
CCV03	Arsenic	5018.65	5000.0	100.4	90 - 110	P	08/05/2013	15:52	LB67176
	Barium	9814.93	10000.0	98.1	90 - 110	P	08/05/2013	15:52	LB67176
	Beryllium	241.74	250.0	96.7	90 - 110	P	08/05/2013	15:52	LB67176
	Cadmium	2541.88	2500.0	101.7	90 - 110	P	08/05/2013	15:52	LB67176
	Chromium	979.34	1000.0	97.9	90 - 110	P	08/05/2013	15:52	LB67176
	Copper	1200.76	1250.0	96.1	90 - 110	P	08/05/2013	15:52	LB67176
	Lead	5039.69	5000.0	100.8	90 - 110	P	08/05/2013	15:52	LB67176
	Manganese	2414.29	2500.0	96.6	90 - 110	P	08/05/2013	15:52	LB67176
	Nickel	2481.03	2500.0	99.2	90 - 110	P	08/05/2013	15:52	LB67176
	Selenium	5026.09	5000.0	100.5	90 - 110	P	08/05/2013	15:52	LB67176
	Silver	1196.68	1250.0	95.7	90 - 110	P	08/05/2013	15:52	LB67176
	Zinc	2449.74	2500.0	98.0	90 - 110	P	08/05/2013	15:52	LB67176
LLCCV03	Arsenic	21.59	20.0	108.0	70 - 130	P	08/05/2013	15:56	LB67176
	Barium	99.32	100.0	99.3	70 - 130	P	08/05/2013	15:56	LB67176
	Beryllium	5.48	6.0	91.3	70 - 130	P	08/05/2013	15:56	LB67176
	Cadmium	5.85	6.0	97.5	70 - 130	P	08/05/2013	15:56	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Chromium	9.88	10.0	98.8	70 - 130	P	08/05/2013	15:56	LB67176
	Copper	19.52	20.0	97.6	70 - 130	P	08/05/2013	15:56	LB67176
	Lead	11.04	12.0	92.0	70 - 130	P	08/05/2013	15:56	LB67176
	Manganese	20.31	20.0	101.6	70 - 130	P	08/05/2013	15:56	LB67176
	Nickel	38.43	40.0	96.1	70 - 130	P	08/05/2013	15:56	LB67176
	Selenium	18.06	20.0	90.3	70 - 130	P	08/05/2013	15:56	LB67176
	Silver	9.55	10.0	95.5	70 - 130	P	08/05/2013	15:56	LB67176
	Zinc	40.37	40.0	100.9	70 - 130	P	08/05/2013	15:56	LB67176
CCV04	Arsenic	4832.71	5000.0	96.7	90 - 110	P	08/05/2013	16:47	LB67176
	Barium	9738.62	10000.0	97.4	90 - 110	P	08/05/2013	16:47	LB67176
	Beryllium	244.99	250.0	98.0	90 - 110	P	08/05/2013	16:47	LB67176
	Cadmium	2439.90	2500.0	97.6	90 - 110	P	08/05/2013	16:47	LB67176
	Chromium	978.70	1000.0	97.9	90 - 110	P	08/05/2013	16:47	LB67176
	Copper	1222.21	1250.0	97.8	90 - 110	P	08/05/2013	16:47	LB67176
	Lead	4841.05	5000.0	96.8	90 - 110	P	08/05/2013	16:47	LB67176
	Manganese	2436.02	2500.0	97.4	90 - 110	P	08/05/2013	16:47	LB67176
	Nickel	2437.61	2500.0	97.5	90 - 110	P	08/05/2013	16:47	LB67176
	Selenium	4817.68	5000.0	96.4	90 - 110	P	08/05/2013	16:47	LB67176
	Silver	1190.62	1250.0	95.2	90 - 110	P	08/05/2013	16:47	LB67176
	Zinc	2496.57	2500.0	99.9	90 - 110	P	08/05/2013	16:47	LB67176
LLCCV04	Arsenic	21.99	20.0	110.0	70 - 130	P	08/05/2013	17:01	LB67176
	Barium	99.31	100.0	99.3	70 - 130	P	08/05/2013	17:01	LB67176
	Beryllium	4.50	6.0	75.0	70 - 130	P	08/05/2013	17:01	LB67176
	Cadmium	5.75	6.0	95.8	70 - 130	P	08/05/2013	17:01	LB67176
	Chromium	9.93	10.0	99.3	70 - 130	P	08/05/2013	17:01	LB67176
	Copper	19.58	20.0	97.9	70 - 130	P	08/05/2013	17:01	LB67176
	Lead	12.66	12.0	105.5	70 - 130	P	08/05/2013	17:01	LB67176
	Manganese	19.09	20.0	95.4	70 - 130	P	08/05/2013	17:01	LB67176
	Nickel	37.87	40.0	94.7	70 - 130	P	08/05/2013	17:01	LB67176
	Selenium	17.74	20.0	88.7	70 - 130	P	08/05/2013	17:01	LB67176
	Silver	9.50	10.0	95.0	70 - 130	P	08/05/2013	17:01	LB67176
	Zinc	42.83	40.0	107.1	70 - 130	P	08/05/2013	17:01	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Arsenic	4824.79	5000.0	96.5	90 - 110	P	08/05/2013	17:13	LB67176
	Barium	9767.13	10000.0	97.7	90 - 110	P	08/05/2013	17:13	LB67176
	Beryllium	245.85	250.0	98.3	90 - 110	P	08/05/2013	17:13	LB67176
	Cadmium	2434.68	2500.0	97.4	90 - 110	P	08/05/2013	17:13	LB67176
	Chromium	975.22	1000.0	97.5	90 - 110	P	08/05/2013	17:13	LB67176
	Copper	1225.61	1250.0	98.0	90 - 110	P	08/05/2013	17:13	LB67176
	Lead	4819.85	5000.0	96.4	90 - 110	P	08/05/2013	17:13	LB67176
	Manganese	2444.02	2500.0	97.8	90 - 110	P	08/05/2013	17:13	LB67176
	Nickel	2434.38	2500.0	97.4	90 - 110	P	08/05/2013	17:13	LB67176
	Selenium	4825.11	5000.0	96.5	90 - 110	P	08/05/2013	17:13	LB67176
	Silver	1193.51	1250.0	95.5	90 - 110	P	08/05/2013	17:13	LB67176
	Zinc	2453.59	2500.0	98.1	90 - 110	P	08/05/2013	17:13	LB67176
LLCCV05	Arsenic	19.10	20.0	95.5	70 - 130	P	08/05/2013	17:16	LB67176
	Barium	100.49	100.0	100.5	70 - 130	P	08/05/2013	17:16	LB67176
	Beryllium	5.34	6.0	89.0	70 - 130	P	08/05/2013	17:16	LB67176
	Cadmium	5.91	6.0	98.5	70 - 130	P	08/05/2013	17:16	LB67176
	Chromium	9.74	10.0	97.4	70 - 130	P	08/05/2013	17:16	LB67176
	Copper	20.93	20.0	104.6	70 - 130	P	08/05/2013	17:16	LB67176
	Lead	10.94	12.0	91.2	70 - 130	P	08/05/2013	17:16	LB67176
	Manganese	19.61	20.0	98.0	70 - 130	P	08/05/2013	17:16	LB67176
	Nickel	38.04	40.0	95.1	70 - 130	P	08/05/2013	17:16	LB67176
	Selenium	18.87	20.0	94.4	70 - 130	P	08/05/2013	17:16	LB67176
	Silver	9.48	10.0	94.8	70 - 130	P	08/05/2013	17:16	LB67176
	Zinc	43.38	40.0	108.4	70 - 130	P	08/05/2013	17:16	LB67176
CCV06	Arsenic	4809.33	5000.0	96.2	90 - 110	P	08/05/2013	17:53	LB67176
	Barium	9776.63	10000.0	97.8	90 - 110	P	08/05/2013	17:53	LB67176
	Beryllium	245.63	250.0	98.3	90 - 110	P	08/05/2013	17:53	LB67176
	Cadmium	2433.10	2500.0	97.3	90 - 110	P	08/05/2013	17:53	LB67176
	Chromium	978.99	1000.0	97.9	90 - 110	P	08/05/2013	17:53	LB67176
	Copper	1224.00	1250.0	97.9	90 - 110	P	08/05/2013	17:53	LB67176
	Lead	4817.91	5000.0	96.4	90 - 110	P	08/05/2013	17:53	LB67176
	Manganese	2435.58	2500.0	97.4	90 - 110	P	08/05/2013	17:53	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Nickel	2431.56	2500.0	97.3	90 - 110	P	08/05/2013	17:53	LB67176
	Selenium	4807.24	5000.0	96.1	90 - 110	P	08/05/2013	17:53	LB67176
	Silver	1188.66	1250.0	95.1	90 - 110	P	08/05/2013	17:53	LB67176
	Zinc	2408.79	2500.0	96.4	90 - 110	P	08/05/2013	17:53	LB67176
LLCCV06	Arsenic	20.82	20.0	104.1	70 - 130	P	08/05/2013	18:03	LB67176
	Barium	99.14	100.0	99.1	70 - 130	P	08/05/2013	18:03	LB67176
	Beryllium	4.28	6.0	71.3	70 - 130	P	08/05/2013	18:03	LB67176
	Cadmium	5.94	6.0	99.0	70 - 130	P	08/05/2013	18:03	LB67176
	Chromium	9.98	10.0	99.8	70 - 130	P	08/05/2013	18:03	LB67176
	Copper	19.01	20.0	95.0	70 - 130	P	08/05/2013	18:03	LB67176
	Lead	12.11	12.0	100.9	70 - 130	P	08/05/2013	18:03	LB67176
	Manganese	19.79	20.0	99.0	70 - 130	P	08/05/2013	18:03	LB67176
	Nickel	38.66	40.0	96.6	70 - 130	P	08/05/2013	18:03	LB67176
	Selenium	17.76	20.0	88.8	70 - 130	P	08/05/2013	18:03	LB67176
	Silver	9.68	10.0	96.8	70 - 130	P	08/05/2013	18:03	LB67176
	Zinc	44.04	40.0	110.1	70 - 130	P	08/05/2013	18:03	LB67176
CCV07	Arsenic	4851.48	5000.0	97.0	90 - 110	P	08/05/2013	18:44	LB67176
	Barium	9744.52	10000.0	97.4	90 - 110	P	08/05/2013	18:44	LB67176
	Beryllium	243.79	250.0	97.5	90 - 110	P	08/05/2013	18:44	LB67176
	Cadmium	2456.21	2500.0	98.2	90 - 110	P	08/05/2013	18:44	LB67176
	Chromium	957.32	1000.0	95.7	90 - 110	P	08/05/2013	18:44	LB67176
	Copper	1217.34	1250.0	97.4	90 - 110	P	08/05/2013	18:44	LB67176
	Lead	4861.18	5000.0	97.2	90 - 110	P	08/05/2013	18:44	LB67176
	Manganese	2411.00	2500.0	96.4	90 - 110	P	08/05/2013	18:44	LB67176
	Nickel	2453.74	2500.0	98.1	90 - 110	P	08/05/2013	18:44	LB67176
	Selenium	4847.51	5000.0	97.0	90 - 110	P	08/05/2013	18:44	LB67176
	Silver	1160.10	1250.0	92.8	90 - 110	P	08/05/2013	18:44	LB67176
	Zinc	2422.40	2500.0	96.9	90 - 110	P	08/05/2013	18:44	LB67176
LLCCV07	Arsenic	21.12	20.0	105.6	70 - 130	P	08/05/2013	18:48	LB67176
	Barium	100.55	100.0	100.6	70 - 130	P	08/05/2013	18:48	LB67176
	Beryllium	5.39	6.0	89.8	70 - 130	P	08/05/2013	18:48	LB67176
	Cadmium	6.14	6.0	102.3	70 - 130	P	08/05/2013	18:48	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV07	Chromium	9.72	10.0	97.2	70 - 130	P	08/05/2013	18:48	LB67176
	Copper	18.31	20.0	91.6	70 - 130	P	08/05/2013	18:48	LB67176
	Lead	12.27	12.0	102.2	70 - 130	P	08/05/2013	18:48	LB67176
	Manganese	19.84	20.0	99.2	70 - 130	P	08/05/2013	18:48	LB67176
	Nickel	38.10	40.0	95.2	70 - 130	P	08/05/2013	18:48	LB67176
	Selenium	20.99	20.0	105.0	70 - 130	P	08/05/2013	18:48	LB67176
	Silver	9.40	10.0	94.0	70 - 130	P	08/05/2013	18:48	LB67176
	Zinc	47.07	40.0	117.7	70 - 130	P	08/05/2013	18:48	LB67176
CCV08	Arsenic	4751.10	5000.0	95.0	90 - 110	P	08/05/2013	19:29	LB67176
	Barium	9742.30	10000.0	97.4	90 - 110	P	08/05/2013	19:29	LB67176
	Beryllium	242.41	250.0	97.0	90 - 110	P	08/05/2013	19:29	LB67176
	Cadmium	2401.84	2500.0	96.1	90 - 110	P	08/05/2013	19:29	LB67176
	Chromium	959.57	1000.0	96.0	90 - 110	P	08/05/2013	19:29	LB67176
	Copper	1203.90	1250.0	96.3	90 - 110	P	08/05/2013	19:29	LB67176
	Lead	4753.09	5000.0	95.1	90 - 110	P	08/05/2013	19:29	LB67176
	Manganese	2387.23	2500.0	95.5	90 - 110	P	08/05/2013	19:29	LB67176
	Nickel	2398.38	2500.0	95.9	90 - 110	P	08/05/2013	19:29	LB67176
	Selenium	4757.71	5000.0	95.2	90 - 110	P	08/05/2013	19:29	LB67176
	Silver	1161.84	1250.0	92.9	90 - 110	P	08/05/2013	19:29	LB67176
	Zinc	2416.37	2500.0	96.7	90 - 110	P	08/05/2013	19:29	LB67176
LLCCV08	Arsenic	20.02	20.0	100.1	70 - 130	P	08/05/2013	19:32	LB67176
	Barium	100.46	100.0	100.5	70 - 130	P	08/05/2013	19:32	LB67176
	Beryllium	5.14	6.0	85.7	70 - 130	P	08/05/2013	19:32	LB67176
	Cadmium	5.88	6.0	98.0	70 - 130	P	08/05/2013	19:32	LB67176
	Chromium	9.60	10.0	96.0	70 - 130	P	08/05/2013	19:32	LB67176
	Copper	19.85	20.0	99.2	70 - 130	P	08/05/2013	19:32	LB67176
	Lead	10.66	12.0	88.8	70 - 130	P	08/05/2013	19:32	LB67176
	Manganese	19.25	20.0	96.2	70 - 130	P	08/05/2013	19:32	LB67176
	Nickel	38.14	40.0	95.4	70 - 130	P	08/05/2013	19:32	LB67176
	Selenium	17.05	20.0	85.2	70 - 130	P	08/05/2013	19:32	LB67176
	Silver	9.45	10.0	94.5	70 - 130	P	08/05/2013	19:32	LB67176
	Zinc	39.74	40.0	99.4	70 - 130	P	08/05/2013	19:32	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Arsenic	4908.60	5000.0	98.2	90 - 110	P	08/05/2013	20:13	LB67176
	Barium	9878.11	10000.0	98.8	90 - 110	P	08/05/2013	20:13	LB67176
	Beryllium	240.42	250.0	96.2	90 - 110	P	08/05/2013	20:13	LB67176
	Cadmium	2442.92	2500.0	97.7	90 - 110	P	08/05/2013	20:13	LB67176
	Chromium	959.71	1000.0	96.0	90 - 110	P	08/05/2013	20:13	LB67176
	Copper	1207.09	1250.0	96.6	90 - 110	P	08/05/2013	20:13	LB67176
	Lead	4856.07	5000.0	97.1	90 - 110	P	08/05/2013	20:13	LB67176
	Manganese	2403.56	2500.0	96.1	90 - 110	P	08/05/2013	20:13	LB67176
	Nickel	2439.44	2500.0	97.6	90 - 110	P	08/05/2013	20:13	LB67176
	Selenium	4929.18	5000.0	98.6	90 - 110	P	08/05/2013	20:13	LB67176
	Silver	1180.86	1250.0	94.5	90 - 110	P	08/05/2013	20:13	LB67176
	Zinc	2373.47	2500.0	94.9	90 - 110	P	08/05/2013	20:13	LB67176
LLCCV09	Arsenic	21.52	20.0	107.6	70 - 130	P	08/05/2013	20:17	LB67176
	Barium	100.26	100.0	100.3	70 - 130	P	08/05/2013	20:17	LB67176
	Beryllium	5.64	6.0	94.0	70 - 130	P	08/05/2013	20:17	LB67176
	Cadmium	5.89	6.0	98.2	70 - 130	P	08/05/2013	20:17	LB67176
	Chromium	9.79	10.0	97.9	70 - 130	P	08/05/2013	20:17	LB67176
	Copper	18.28	20.0	91.4	70 - 130	P	08/05/2013	20:17	LB67176
	Lead	11.05	12.0	92.1	70 - 130	P	08/05/2013	20:17	LB67176
	Manganese	19.68	20.0	98.4	70 - 130	P	08/05/2013	20:17	LB67176
	Nickel	37.92	40.0	94.8	70 - 130	P	08/05/2013	20:17	LB67176
	Selenium	17.39	20.0	87.0	70 - 130	P	08/05/2013	20:17	LB67176
	Silver	9.46	10.0	94.6	70 - 130	P	08/05/2013	20:17	LB67176
	Zinc	47.54	40.0	118.8	70 - 130	P	08/05/2013	20:17	LB67176
CCV10	Arsenic	4778.55	5000.0	95.6	90 - 110	P	08/05/2013	20:57	LB67176
	Barium	9348.10	10000.0	93.5	90 - 110	P	08/05/2013	20:57	LB67176
	Beryllium	236.49	250.0	94.6	90 - 110	P	08/05/2013	20:57	LB67176
	Cadmium	2395.41	2500.0	95.8	90 - 110	P	08/05/2013	20:57	LB67176
	Chromium	959.84	1000.0	96.0	90 - 110	P	08/05/2013	20:57	LB67176
	Copper	1173.63	1250.0	93.9	90 - 110	P	08/05/2013	20:57	LB67176
	Lead	4728.67	5000.0	94.6	90 - 110	P	08/05/2013	20:57	LB67176
	Manganese	2317.75	2500.0	92.7	90 - 110	P	08/05/2013	20:57	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Nickel	2387.75	2500.0	95.5	90 - 110	P	08/05/2013	20:57	LB67176
	Selenium	4777.05	5000.0	95.5	90 - 110	P	08/05/2013	20:57	LB67176
	Silver	1159.17	1250.0	92.7	90 - 110	P	08/05/2013	20:57	LB67176
	Zinc	2326.28	2500.0	93.1	90 - 110	P	08/05/2013	20:57	LB67176
LLCCV10	Arsenic	21.17	20.0	105.8	70 - 130	P	08/05/2013	21:01	LB67176
	Barium	99.12	100.0	99.1	70 - 130	P	08/05/2013	21:01	LB67176
	Beryllium	5.31	6.0	88.5	70 - 130	P	08/05/2013	21:01	LB67176
	Cadmium	5.89	6.0	98.2	70 - 130	P	08/05/2013	21:01	LB67176
	Chromium	9.56	10.0	95.6	70 - 130	P	08/05/2013	21:01	LB67176
	Copper	19.51	20.0	97.6	70 - 130	P	08/05/2013	21:01	LB67176
	Lead	11.14	12.0	92.8	70 - 130	P	08/05/2013	21:01	LB67176
	Manganese	19.11	20.0	95.6	70 - 130	P	08/05/2013	21:01	LB67176
	Nickel	38.37	40.0	95.9	70 - 130	P	08/05/2013	21:01	LB67176
	Selenium	18.67	20.0	93.4	70 - 130	P	08/05/2013	21:01	LB67176
	Silver	9.31	10.0	93.1	70 - 130	P	08/05/2013	21:01	LB67176
	Zinc	41.93	40.0	104.8	70 - 130	P	08/05/2013	21:01	LB67176
CCV11	Arsenic	4820.38	5000.0	96.4	90 - 110	P	08/05/2013	21:45	LB67176
	Barium	9667.50	10000.0	96.7	90 - 110	P	08/05/2013	21:45	LB67176
	Beryllium	240.36	250.0	96.1	90 - 110	P	08/05/2013	21:45	LB67176
	Cadmium	2427.41	2500.0	97.1	90 - 110	P	08/05/2013	21:45	LB67176
	Chromium	967.88	1000.0	96.8	90 - 110	P	08/05/2013	21:45	LB67176
	Copper	1200.29	1250.0	96.0	90 - 110	P	08/05/2013	21:45	LB67176
	Lead	4797.82	5000.0	96.0	90 - 110	P	08/05/2013	21:45	LB67176
	Manganese	2402.79	2500.0	96.1	90 - 110	P	08/05/2013	21:45	LB67176
	Nickel	2415.66	2500.0	96.6	90 - 110	P	08/05/2013	21:45	LB67176
	Selenium	4831.67	5000.0	96.6	90 - 110	P	08/05/2013	21:45	LB67176
	Silver	1183.35	1250.0	94.7	90 - 110	P	08/05/2013	21:45	LB67176
	Zinc	2424.64	2500.0	97.0	90 - 110	P	08/05/2013	21:45	LB67176
LLCCV11	Arsenic	21.13	20.0	105.6	70 - 130	P	08/05/2013	21:48	LB67176
	Barium	100.99	100.0	101.0	70 - 130	P	08/05/2013	21:48	LB67176
	Beryllium	6.01	6.0	100.2	70 - 130	P	08/05/2013	21:48	LB67176
	Cadmium	5.88	6.0	98.0	70 - 130	P	08/05/2013	21:48	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV11	Chromium	9.51	10.0	95.1	70 - 130	P	08/05/2013	21:48	LB67176
	Copper	18.57	20.0	92.8	70 - 130	P	08/05/2013	21:48	LB67176
	Lead	12.61	12.0	105.1	70 - 130	P	08/05/2013	21:48	LB67176
	Manganese	19.39	20.0	97.0	70 - 130	P	08/05/2013	21:48	LB67176
	Nickel	37.76	40.0	94.4	70 - 130	P	08/05/2013	21:48	LB67176
	Selenium	16.91	20.0	84.6	70 - 130	P	08/05/2013	21:48	LB67176
	Silver	9.32	10.0	93.2	70 - 130	P	08/05/2013	21:48	LB67176
	Zinc	34.88	40.0	87.2	70 - 130	P	08/05/2013	21:48	LB67176
CCV12	Arsenic	4986.37	5000.0	99.7	90 - 110	P	08/05/2013	22:19	LB67176
	Barium	10020.16	10000.0	100.2	90 - 110	P	08/05/2013	22:19	LB67176
	Beryllium	242.68	250.0	97.1	90 - 110	P	08/05/2013	22:19	LB67176
	Cadmium	2478.47	2500.0	99.1	90 - 110	P	08/05/2013	22:19	LB67176
	Chromium	980.17	1000.0	98.0	90 - 110	P	08/05/2013	22:19	LB67176
	Copper	1221.54	1250.0	97.7	90 - 110	P	08/05/2013	22:19	LB67176
	Lead	4933.18	5000.0	98.7	90 - 110	P	08/05/2013	22:19	LB67176
	Manganese	2457.91	2500.0	98.3	90 - 110	P	08/05/2013	22:19	LB67176
	Nickel	2467.75	2500.0	98.7	90 - 110	P	08/05/2013	22:19	LB67176
	Selenium	5012.25	5000.0	100.2	90 - 110	P	08/05/2013	22:19	LB67176
	Silver	1202.32	1250.0	96.2	90 - 110	P	08/05/2013	22:19	LB67176
	Zinc	2442.51	2500.0	97.7	90 - 110	P	08/05/2013	22:19	LB67176
LLCCV12	Arsenic	21.63	20.0	108.2	70 - 130	P	08/05/2013	22:23	LB67176
	Barium	98.77	100.0	98.8	70 - 130	P	08/05/2013	22:23	LB67176
	Beryllium	4.92	6.0	82.0	70 - 130	P	08/05/2013	22:23	LB67176
	Cadmium	5.68	6.0	94.7	70 - 130	P	08/05/2013	22:23	LB67176
	Chromium	9.56	10.0	95.6	70 - 130	P	08/05/2013	22:23	LB67176
	Copper	19.89	20.0	99.4	70 - 130	P	08/05/2013	22:23	LB67176
	Lead	12.48	12.0	104.0	70 - 130	P	08/05/2013	22:23	LB67176
	Manganese	19.10	20.0	95.5	70 - 130	P	08/05/2013	22:23	LB67176
	Nickel	37.37	40.0	93.4	70 - 130	P	08/05/2013	22:23	LB67176
	Selenium	16.96	20.0	84.8	70 - 130	P	08/05/2013	22:23	LB67176
	Silver	9.32	10.0	93.2	70 - 130	P	08/05/2013	22:23	LB67176
	Zinc	46.45	40.0	116.1	70 - 130	P	08/05/2013	22:23	LB67176

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1043.07	999.0	104.4	90 - 110	P	08/05/2013	12:37	LB67208
	Barium	541.59	503.0	107.7	90 - 110	P	08/05/2013	12:37	LB67208
	Beryllium	512.26	495.0	103.5	90 - 110	P	08/05/2013	12:37	LB67208
	Cadmium	514.33	496.0	103.7	90 - 110	P	08/05/2013	12:37	LB67208
	Chromium	504.26	490.0	102.9	90 - 110	P	08/05/2013	12:37	LB67208
	Copper	528.00	492.0	107.3	90 - 110	P	08/05/2013	12:37	LB67208
	Lead	1044.89	1002.0	104.3	90 - 110	P	08/05/2013	12:37	LB67208
	Manganese	529.77	499.0	106.2	90 - 110	P	08/05/2013	12:37	LB67208
	Nickel	518.38	503.0	103.1	90 - 110	P	08/05/2013	12:37	LB67208
	Selenium	1043.95	1003.0	104.1	90 - 110	P	08/05/2013	12:37	LB67208
	Silver	497.20	501.0	99.2	90 - 110	P	08/05/2013	12:37	LB67208
	Zinc	1077.72	1025.0	105.1	90 - 110	P	08/05/2013	12:37	LB67208
LL1CV01	Arsenic	20.21	20.0	101.0	70 - 130	P	08/05/2013	12:49	LB67208
	Barium	105.84	100.0	105.8	70 - 130	P	08/05/2013	12:49	LB67208
	Beryllium	5.49	6.0	91.5	70 - 130	P	08/05/2013	12:49	LB67208
	Cadmium	5.98	6.0	99.7	70 - 130	P	08/05/2013	12:49	LB67208
	Chromium	9.88	10.0	98.8	70 - 130	P	08/05/2013	12:49	LB67208
	Copper	18.63	20.0	93.2	70 - 130	P	08/05/2013	12:49	LB67208
	Lead	11.93	12.0	99.4	70 - 130	P	08/05/2013	12:49	LB67208
	Manganese	20.26	20.0	101.3	70 - 130	P	08/05/2013	12:49	LB67208
	Nickel	39.14	40.0	97.8	70 - 130	P	08/05/2013	12:49	LB67208
	Selenium	17.78	20.0	88.9	70 - 130	P	08/05/2013	12:49	LB67208
	Silver	9.87	10.0	98.7	70 - 130	P	08/05/2013	12:49	LB67208
	Zinc	50.65	40.0	126.6	70 - 130	P	08/05/2013	12:49	LB67208
CCV01	Arsenic	4992.44	5000.0	99.8	90 - 110	P	08/05/2013	13:12	LB67208
	Barium	10171.21	10000.0	101.7	90 - 110	P	08/05/2013	13:12	LB67208
	Beryllium	252.51	250.0	101.0	90 - 110	P	08/05/2013	13:12	LB67208
	Cadmium	2527.32	2500.0	101.1	90 - 110	P	08/05/2013	13:12	LB67208
	Chromium	1008.35	1000.0	100.8	90 - 110	P	08/05/2013	13:12	LB67208
	Copper	1260.17	1250.0	100.8	90 - 110	P	08/05/2013	13:12	LB67208
	Lead	5032.64	5000.0	100.7	90 - 110	P	08/05/2013	13:12	LB67208
	Manganese	2531.63	2500.0	101.3	90 - 110	P	08/05/2013	13:12	LB67208

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Nickel	2506.19	2500.0	100.2	90 - 110	P	08/05/2013	13:12	LB67208
	Selenium	5039.03	5000.0	100.8	90 - 110	P	08/05/2013	13:12	LB67208
	Silver	1234.73	1250.0	98.8	90 - 110	P	08/05/2013	13:12	LB67208
	Zinc	2525.11	2500.0	101.0	90 - 110	P	08/05/2013	13:12	LB67208
LLCCV01	Arsenic	22.87	20.0	114.4	70 - 130	P	08/05/2013	13:16	LB67208
	Barium	102.23	100.0	102.2	70 - 130	P	08/05/2013	13:16	LB67208
	Beryllium	5.99	6.0	99.8	70 - 130	P	08/05/2013	13:16	LB67208
	Cadmium	6.15	6.0	102.5	70 - 130	P	08/05/2013	13:16	LB67208
	Chromium	9.92	10.0	99.2	70 - 130	P	08/05/2013	13:16	LB67208
	Copper	20.07	20.0	100.4	70 - 130	P	08/05/2013	13:16	LB67208
	Lead	11.75	12.0	97.9	70 - 130	P	08/05/2013	13:16	LB67208
	Manganese	19.77	20.0	98.8	70 - 130	P	08/05/2013	13:16	LB67208
	Nickel	38.95	40.0	97.4	70 - 130	P	08/05/2013	13:16	LB67208
	Selenium	20.69	20.0	103.4	70 - 130	P	08/05/2013	13:16	LB67208
	Silver	9.62	10.0	96.2	70 - 130	P	08/05/2013	13:16	LB67208
	Zinc	45.78	40.0	114.4	70 - 130	P	08/05/2013	13:16	LB67208
LLCCV02	Arsenic	23.72	20.0	118.6	70 - 130	P	08/05/2013	14:07	LB67208
	Barium	103.57	100.0	103.6	70 - 130	P	08/05/2013	14:07	LB67208
	Beryllium	5.37	6.0	89.5	70 - 130	P	08/05/2013	14:07	LB67208
	Cadmium	7.10	6.0	118.3	70 - 130	P	08/05/2013	14:07	LB67208
	Chromium	9.94	10.0	99.4	70 - 130	P	08/05/2013	14:07	LB67208
	Copper	20.30	20.0	101.5	70 - 130	P	08/05/2013	14:07	LB67208
	Lead	14.63	12.0	121.9	70 - 130	P	08/05/2013	14:07	LB67208
	Manganese	19.51	20.0	97.6	70 - 130	P	08/05/2013	14:07	LB67208
	Nickel	39.59	40.0	99.0	70 - 130	P	08/05/2013	14:07	LB67208
	Selenium	18.06	20.0	90.3	70 - 130	P	08/05/2013	14:07	LB67208
	Silver	9.79	10.0	97.9	70 - 130	P	08/05/2013	14:07	LB67208
	Zinc	49.30	40.0	123.2	70 - 130	P	08/05/2013	14:07	LB67208
CCV02	Arsenic	5098.52	5000.0	102.0	90 - 110	P	08/05/2013	14:12	LB67208
	Barium	10134.14	10000.0	101.3	90 - 110	P	08/05/2013	14:12	LB67208
	Beryllium	256.42	250.0	102.6	90 - 110	P	08/05/2013	14:12	LB67208
	Cadmium	2559.76	2500.0	102.4	90 - 110	P	08/05/2013	14:12	LB67208

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Chromium	1006.82	1000.0	100.7	90 - 110	P	08/05/2013	14:12	LB67208
	Copper	1265.54	1250.0	101.2	90 - 110	P	08/05/2013	14:12	LB67208
	Lead	5101.82	5000.0	102.0	90 - 110	P	08/05/2013	14:12	LB67208
	Manganese	2517.03	2500.0	100.7	90 - 110	P	08/05/2013	14:12	LB67208
	Nickel	2499.71	2500.0	100.0	90 - 110	P	08/05/2013	14:12	LB67208
	Selenium	5114.03	5000.0	102.3	90 - 110	P	08/05/2013	14:12	LB67208
	Silver	1220.40	1250.0	97.6	90 - 110	P	08/05/2013	14:12	LB67208
	Zinc	2565.15	2500.0	102.6	90 - 110	P	08/05/2013	14:12	LB67208
CCV03	Arsenic	5018.65	5000.0	100.4	90 - 110	P	08/05/2013	15:52	LB67208
	Barium	9814.93	10000.0	98.1	90 - 110	P	08/05/2013	15:52	LB67208
	Beryllium	241.74	250.0	96.7	90 - 110	P	08/05/2013	15:52	LB67208
	Cadmium	2541.88	2500.0	101.7	90 - 110	P	08/05/2013	15:52	LB67208
	Chromium	979.34	1000.0	97.9	90 - 110	P	08/05/2013	15:52	LB67208
	Copper	1200.76	1250.0	96.1	90 - 110	P	08/05/2013	15:52	LB67208
	Lead	5039.69	5000.0	100.8	90 - 110	P	08/05/2013	15:52	LB67208
	Manganese	2414.29	2500.0	96.6	90 - 110	P	08/05/2013	15:52	LB67208
	Nickel	2481.03	2500.0	99.2	90 - 110	P	08/05/2013	15:52	LB67208
	Selenium	5026.09	5000.0	100.5	90 - 110	P	08/05/2013	15:52	LB67208
	Silver	1196.68	1250.0	95.7	90 - 110	P	08/05/2013	15:52	LB67208
	Zinc	2449.74	2500.0	98.0	90 - 110	P	08/05/2013	15:52	LB67208
LLCCV03	Arsenic	21.59	20.0	108.0	70 - 130	P	08/05/2013	15:56	LB67208
	Barium	99.32	100.0	99.3	70 - 130	P	08/05/2013	15:56	LB67208
	Beryllium	5.48	6.0	91.3	70 - 130	P	08/05/2013	15:56	LB67208
	Cadmium	5.85	6.0	97.5	70 - 130	P	08/05/2013	15:56	LB67208
	Chromium	9.88	10.0	98.8	70 - 130	P	08/05/2013	15:56	LB67208
	Copper	19.52	20.0	97.6	70 - 130	P	08/05/2013	15:56	LB67208
	Lead	11.04	12.0	92.0	70 - 130	P	08/05/2013	15:56	LB67208
	Manganese	20.31	20.0	101.6	70 - 130	P	08/05/2013	15:56	LB67208
	Nickel	38.43	40.0	96.1	70 - 130	P	08/05/2013	15:56	LB67208
	Selenium	18.06	20.0	90.3	70 - 130	P	08/05/2013	15:56	LB67208
	Silver	9.55	10.0	95.5	70 - 130	P	08/05/2013	15:56	LB67208
	Zinc	40.37	40.0	100.9	70 - 130	P	08/05/2013	15:56	LB67208

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4832.71	5000.0	96.7	90 - 110	P	08/05/2013	16:47	LB67208
	Barium	9738.62	10000.0	97.4	90 - 110	P	08/05/2013	16:47	LB67208
	Beryllium	244.99	250.0	98.0	90 - 110	P	08/05/2013	16:47	LB67208
	Cadmium	2439.90	2500.0	97.6	90 - 110	P	08/05/2013	16:47	LB67208
	Chromium	978.70	1000.0	97.9	90 - 110	P	08/05/2013	16:47	LB67208
	Copper	1222.21	1250.0	97.8	90 - 110	P	08/05/2013	16:47	LB67208
	Lead	4841.05	5000.0	96.8	90 - 110	P	08/05/2013	16:47	LB67208
	Manganese	2436.02	2500.0	97.4	90 - 110	P	08/05/2013	16:47	LB67208
	Nickel	2437.61	2500.0	97.5	90 - 110	P	08/05/2013	16:47	LB67208
	Selenium	4817.68	5000.0	96.4	90 - 110	P	08/05/2013	16:47	LB67208
	Silver	1190.62	1250.0	95.2	90 - 110	P	08/05/2013	16:47	LB67208
	Zinc	2496.57	2500.0	99.9	90 - 110	P	08/05/2013	16:47	LB67208
LLCCV04	Arsenic	21.99	20.0	110.0	70 - 130	P	08/05/2013	17:01	LB67208
	Barium	99.31	100.0	99.3	70 - 130	P	08/05/2013	17:01	LB67208
	Beryllium	4.50	6.0	75.0	70 - 130	P	08/05/2013	17:01	LB67208
	Cadmium	5.75	6.0	95.8	70 - 130	P	08/05/2013	17:01	LB67208
	Chromium	9.93	10.0	99.3	70 - 130	P	08/05/2013	17:01	LB67208
	Copper	19.58	20.0	97.9	70 - 130	P	08/05/2013	17:01	LB67208
	Lead	12.66	12.0	105.5	70 - 130	P	08/05/2013	17:01	LB67208
	Manganese	19.09	20.0	95.4	70 - 130	P	08/05/2013	17:01	LB67208
	Nickel	37.87	40.0	94.7	70 - 130	P	08/05/2013	17:01	LB67208
	Selenium	17.74	20.0	88.7	70 - 130	P	08/05/2013	17:01	LB67208
	Silver	9.50	10.0	95.0	70 - 130	P	08/05/2013	17:01	LB67208
	Zinc	42.83	40.0	107.1	70 - 130	P	08/05/2013	17:01	LB67208

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Mercury	3.91	4.0	97.8	90 - 110	CV	08/07/2013	14:16	LB67209
CCV01	Mercury	5.04	5.0	100.8	90 - 110	CV	08/07/2013	14:20	LB67209
CCV02	Mercury	5.06	5.0	101.2	90 - 110	CV	08/07/2013	14:45	LB67209
CCV03	Mercury	5.05	5.0	101.0	90 - 110	CV	08/07/2013	15:04	LB67209

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: PLASMA-PURE

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	18.89	20.0	94.4	40 - 160	P	08/02/2013	13:34	LB67158
	Barium	104.72	100.0	104.7	40 - 160	P	08/02/2013	13:34	LB67158
	Beryllium	5.87	6.0	97.8	40 - 160	P	08/02/2013	13:34	LB67158
	Cadmium	5.93	6.0	98.8	40 - 160	P	08/02/2013	13:34	LB67158
	Chromium	10.03	10.0	100.3	40 - 160	P	08/02/2013	13:34	LB67158
	Copper	19.53	20.0	97.6	40 - 160	P	08/02/2013	13:34	LB67158
	Lead	12.71	12.0	105.9	0 - 200	P	08/02/2013	13:34	LB67158
	Manganese	20.68	20.0	103.4	40 - 160	P	08/02/2013	13:34	LB67158
	Nickel	40.34	40.0	100.8	40 - 160	P	08/02/2013	13:34	LB67158
	Selenium	20.44	20.0	102.2	40 - 160	P	08/02/2013	13:34	LB67158
	Silver	9.79	10.0	97.9	40 - 160	P	08/02/2013	13:34	LB67158
	Zinc	41.42	40.0	103.6	40 - 160	P	08/02/2013	13:34	LB67158
CRI01	Arsenic	21.66	20.0	108.3	40 - 160	P	08/05/2013	12:55	LB67176
	Barium	104.12	100.0	104.1	40 - 160	P	08/05/2013	12:55	LB67176
	Beryllium	5.61	6.0	93.5	40 - 160	P	08/05/2013	12:55	LB67176
	Cadmium	5.90	6.0	98.3	40 - 160	P	08/05/2013	12:55	LB67176
	Chromium	10.34	10.0	103.4	40 - 160	P	08/05/2013	12:55	LB67176
	Copper	19.28	20.0	96.4	40 - 160	P	08/05/2013	12:55	LB67176
	Lead	11.31	12.0	94.2	0 - 200	P	08/05/2013	12:55	LB67176
	Manganese	20.19	20.0	101.0	40 - 160	P	08/05/2013	12:55	LB67176
	Nickel	39.11	40.0	97.8	40 - 160	P	08/05/2013	12:55	LB67176
	Selenium	19.20	20.0	96.0	40 - 160	P	08/05/2013	12:55	LB67176
	Silver	9.68	10.0	96.8	40 - 160	P	08/05/2013	12:55	LB67176
	Zinc	48.76	40.0	121.9	40 - 160	P	08/05/2013	12:55	LB67176
CRI01	Arsenic	21.66	20.0	108.3	40 - 160	P	08/05/2013	12:55	LB67208
	Barium	104.12	100.0	104.1	40 - 160	P	08/05/2013	12:55	LB67208
	Beryllium	5.61	6.0	93.5	40 - 160	P	08/05/2013	12:55	LB67208
	Cadmium	5.90	6.0	98.3	40 - 160	P	08/05/2013	12:55	LB67208
	Chromium	10.34	10.0	103.4	40 - 160	P	08/05/2013	12:55	LB67208
	Copper	19.28	20.0	96.4	40 - 160	P	08/05/2013	12:55	LB67208
	Lead	11.31	12.0	94.2	0 - 200	P	08/05/2013	12:55	LB67208
	Manganese	20.19	20.0	101.0	40 - 160	P	08/05/2013	12:55	LB67208
	Nickel	39.11	40.0	97.8	40 - 160	P	08/05/2013	12:55	LB67208
	Selenium	19.20	20.0	96.0	40 - 160	P	08/05/2013	12:55	LB67208
	Silver	9.68	10.0	96.8	40 - 160	P	08/05/2013	12:55	LB67208

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Initial Calibration Source: PLASMA-PURE

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Zinc	48.76	40.0	121.9	40 - 160	P	08/05/2013	12:55	LB67208
CRI01	Mercury	0.18	0.2	90.0	70 - 130	CV	08/07/2013	14:24	LB67209
CRI01	Arsenic	20.63	20.0	103.2	40 - 160	P	08/08/2013	18:41	LB67237A
	Barium	101.96	100.0	102.0	40 - 160	P	08/08/2013	18:41	LB67237A
	Beryllium	5.85	6.0	97.5	40 - 160	P	08/08/2013	18:41	LB67237A
	Cadmium	5.66	6.0	94.3	40 - 160	P	08/08/2013	18:41	LB67237A
	Chromium	9.72	10.0	97.2	40 - 160	P	08/08/2013	18:41	LB67237A
	Copper	20.63	20.0	103.2	40 - 160	P	08/08/2013	18:41	LB67237A
	Lead	12.37	12.0	103.1	0 - 200	P	08/08/2013	18:41	LB67237A
	Manganese	19.94	20.0	99.7	40 - 160	P	08/08/2013	18:41	LB67237A
	Nickel	38.11	40.0	95.3	40 - 160	P	08/08/2013	18:41	LB67237A
	Selenium	21.01	20.0	105.0	40 - 160	P	08/08/2013	18:41	LB67237A
	Silver	9.09	10.0	90.9	40 - 160	P	08/08/2013	18:41	LB67237A
	Zinc	40.24	40.0	100.6	40 - 160	P	08/08/2013	18:41	LB67237A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	13:31	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	13:31	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	13:31	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	13:31	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	13:31	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	13:31	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	13:31	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	13:31	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	13:31	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	13:31	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	13:31	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	13:31	LB67158
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	13:58	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	13:58	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	13:58	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	13:58	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	13:58	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	13:58	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	13:58	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	13:58	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	13:58	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	13:58	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	13:58	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	13:58	LB67158
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	14:43	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	14:43	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	14:43	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	14:43	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	14:43	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	14:43	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	14:43	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	14:43	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	14:43	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	14:43	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	14:43	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	14:43	LB67158
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	15:26	LB67158

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	15:26	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	15:26	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	15:26	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	15:26	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	15:26	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	15:26	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	15:26	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	15:26	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	15:26	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	15:26	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	15:26	LB67158
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	15:57	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	15:57	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	15:57	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	15:57	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	15:57	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	15:57	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	15:57	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	15:57	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	15:57	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	15:57	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	15:57	LB67158
	Zinc	8.1	+/-20.0	J	6.5	20.0	P	08/02/2013	15:57	LB67158
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	16:39	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	16:39	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	16:39	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	16:39	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	16:39	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	16:39	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	16:39	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	16:39	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	16:39	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	16:39	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	16:39	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	16:39	LB67158
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	17:55	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	17:55	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	17:55	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	17:55	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	17:55	LB67158

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	17:55	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	17:55	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	17:55	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	17:55	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	17:55	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	17:55	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	17:55	LB67158
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	18:50	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	18:50	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	18:50	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	18:50	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	18:50	LB67158
	Copper	2.3	+/-10.0	J	2.0	10.0	P	08/02/2013	18:50	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	18:50	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	18:50	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	18:50	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	18:50	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	18:50	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	18:50	LB67158
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	19:34	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	19:34	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	19:34	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	19:34	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	19:34	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	19:34	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	19:34	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	19:34	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	19:34	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	19:34	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	19:34	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	19:34	LB67158
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	20:20	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	20:20	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	20:20	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	20:20	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	20:20	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	20:20	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	20:20	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	20:20	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	20:20	LB67158

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	20:20	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	20:20	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	20:20	LB67158
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	21:04	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	21:04	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	21:04	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	21:04	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	21:04	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	21:04	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	21:04	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	21:04	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	21:04	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	21:04	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	21:04	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	21:04	LB67158
CCB11	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	21:48	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	21:48	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	21:48	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	21:48	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	21:48	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	21:48	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	21:48	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	21:48	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	21:48	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	21:48	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	21:48	LB67158
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/02/2013	21:48	LB67158
CCB12	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	22:33	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	22:33	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	22:33	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	22:33	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	22:33	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	22:33	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	22:33	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	22:33	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	22:33	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	22:33	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	22:33	LB67158
	Zinc	9.9	+/-20.0	J	6.5	20.0	P	08/02/2013	22:33	LB67158

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB13	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	23:18	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	23:18	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	23:18	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	23:18	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	23:18	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	23:18	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	23:18	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	23:18	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	23:18	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	23:18	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	23:18	LB67158
	Zinc	8.7	+/-20.0	J	6.5	20.0	P	08/02/2013	23:18	LB67158
CCB14	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/02/2013	23:55	LB67158
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/02/2013	23:55	LB67158
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/02/2013	23:55	LB67158
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/02/2013	23:55	LB67158
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/02/2013	23:55	LB67158
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/02/2013	23:55	LB67158
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/02/2013	23:55	LB67158
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/02/2013	23:55	LB67158
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/02/2013	23:55	LB67158
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/02/2013	23:55	LB67158
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/02/2013	23:55	LB67158
	Zinc	7.2	+/-20.0	J	6.5	20.0	P	08/02/2013	23:55	LB67158
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	12:52	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	12:52	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	12:52	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	12:52	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	12:52	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	12:52	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	12:52	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	12:52	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	12:52	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	12:52	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	12:52	LB67176
	Zinc	7.6	+/-20.0	J	6.5	20.0	P	08/05/2013	12:52	LB67176
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	13:19	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	13:19	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	13:19	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	13:19	LB67176

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	13:19	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	13:19	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	13:19	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	13:19	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	13:19	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	13:19	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	13:19	LB67176
	Zinc	13.1	+/-20.0	J	6.5	20.0	P	08/05/2013	13:19	LB67176
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	14:16	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	14:16	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	14:16	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	14:16	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	14:16	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	14:16	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	14:16	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	14:16	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	14:16	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	14:16	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	14:16	LB67176
	Zinc	8.0	+/-20.0	J	6.5	20.0	P	08/05/2013	14:16	LB67176
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	16:00	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	16:00	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	16:00	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	16:00	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	16:00	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	16:00	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	16:00	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	16:00	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	16:00	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	16:00	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	16:00	LB67176
	Zinc	11.3	+/-20.0	J	6.5	20.0	P	08/05/2013	16:00	LB67176
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	17:05	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	17:05	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	17:05	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	17:05	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	17:05	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	17:05	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	17:05	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	17:05	LB67176

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	17:05	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	17:05	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	17:05	LB67176
	Zinc	10.1	+/-20.0	J	6.5	20.0	P	08/05/2013	17:05	LB67176
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	17:19	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	17:19	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	17:19	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	17:19	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	17:19	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	17:19	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	17:19	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	17:19	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	17:19	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	17:19	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	17:19	LB67176
	Zinc	14.8	+/-20.0	J	6.5	20.0	P	08/05/2013	17:19	LB67176
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	18:07	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	18:07	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	18:07	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	18:07	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	18:07	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	18:07	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	18:07	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	18:07	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	18:07	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	18:07	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	18:07	LB67176
	Zinc	8.4	+/-20.0	J	6.5	20.0	P	08/05/2013	18:07	LB67176
CCB07	Arsenic	4.5	+/-10.0	J	4.2	10.0	P	08/05/2013	18:51	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	18:51	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	18:51	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	18:51	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	18:51	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	18:51	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	18:51	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	18:51	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	18:51	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	18:51	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	18:51	LB67176
	Zinc	7.0	+/-20.0	J	6.5	20.0	P	08/05/2013	18:51	LB67176

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	19:36	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	19:36	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	19:36	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	19:36	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	19:36	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	19:36	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	19:36	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	19:36	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	19:36	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	19:36	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	19:36	LB67176
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/05/2013	19:36	LB67176
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	20:20	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	20:20	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	20:20	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	20:20	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	20:20	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	20:20	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	20:20	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	20:20	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	20:20	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	20:20	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	20:20	LB67176
	Zinc	8.3	+/-20.0	J	6.5	20.0	P	08/05/2013	20:20	LB67176
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	21:04	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	21:04	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	21:04	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	21:04	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	21:04	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	21:04	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	21:04	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	21:04	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	21:04	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	21:04	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	21:04	LB67176
	Zinc	9.4	+/-20.0	J	6.5	20.0	P	08/05/2013	21:04	LB67176
CCB11	Arsenic	4.3	+/-10.0	J	4.2	10.0	P	08/05/2013	21:52	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	21:52	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	21:52	LB67176

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	21:52	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	21:52	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	21:52	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	21:52	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	21:52	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	21:52	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	21:52	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	21:52	LB67176
	Zinc	12.0	+/-20.0	J	6.5	20.0	P	08/05/2013	21:52	LB67176
CCB12	Arsenic	4.4	+/-10.0	J	4.2	10.0	P	08/05/2013	22:26	LB67176
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	22:26	LB67176
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	22:26	LB67176
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	22:26	LB67176
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	22:26	LB67176
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	22:26	LB67176
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	22:26	LB67176
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	22:26	LB67176
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	22:26	LB67176
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	22:26	LB67176
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	22:26	LB67176
	Zinc	10.7	+/-20.0	J	6.5	20.0	P	08/05/2013	22:26	LB67176
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	12:52	LB67208
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	12:52	LB67208
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	12:52	LB67208
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	12:52	LB67208
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	12:52	LB67208
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	12:52	LB67208
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	12:52	LB67208
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	12:52	LB67208
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	12:52	LB67208
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	12:52	LB67208
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	12:52	LB67208
	Zinc	7.6	+/-20.0	J	6.5	20.0	P	08/05/2013	12:52	LB67208
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	13:19	LB67208
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	13:19	LB67208
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	13:19	LB67208
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	13:19	LB67208
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	13:19	LB67208
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	13:19	LB67208
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	13:19	LB67208

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	13:19	LB67208
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	13:19	LB67208
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	13:19	LB67208
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	13:19	LB67208
	Zinc	13.1	+/-20.0	J	6.5	20.0	P	08/05/2013	13:19	LB67208
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	14:16	LB67208
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	14:16	LB67208
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	14:16	LB67208
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	14:16	LB67208
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	14:16	LB67208
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	14:16	LB67208
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	14:16	LB67208
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	14:16	LB67208
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	14:16	LB67208
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	14:16	LB67208
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	14:16	LB67208
	Zinc	8.0	+/-20.0	J	6.5	20.0	P	08/05/2013	14:16	LB67208
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	16:00	LB67208
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	16:00	LB67208
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	16:00	LB67208
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	16:00	LB67208
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	16:00	LB67208
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	16:00	LB67208
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	16:00	LB67208
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	16:00	LB67208
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	16:00	LB67208
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	16:00	LB67208
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	16:00	LB67208
	Zinc	11.3	+/-20.0	J	6.5	20.0	P	08/05/2013	16:00	LB67208
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/05/2013	17:05	LB67208
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/05/2013	17:05	LB67208
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/05/2013	17:05	LB67208
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/05/2013	17:05	LB67208
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/05/2013	17:05	LB67208
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/05/2013	17:05	LB67208
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/05/2013	17:05	LB67208
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/05/2013	17:05	LB67208
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/05/2013	17:05	LB67208
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/05/2013	17:05	LB67208
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/05/2013	17:05	LB67208

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Zinc	10.1	+/-20.0	J	6.5	20.0	P	08/05/2013	17:05	LB67208
ICB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/07/2013	14:18	LB67209
CCB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/07/2013	14:22	LB67209
CCB02	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/07/2013	14:48	LB67209
CCB03	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/07/2013	15:07	LB67209
ICB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	18:38	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	18:38	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	18:38	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	18:38	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	18:38	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	18:38	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	18:38	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	18:38	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	18:38	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	18:38	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	18:38	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	18:38	LB67237A
CCB01	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	18:59	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	18:59	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	18:59	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	18:59	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	18:59	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	18:59	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	18:59	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	18:59	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	18:59	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	18:59	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	18:59	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	18:59	LB67237A
CCB02	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	19:40	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	19:40	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	19:40	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	19:40	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	19:40	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	19:40	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	19:40	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	19:40	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	19:40	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	19:40	LB67237A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	19:40	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	19:40	LB67237A
CCB03	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	20:26	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	20:26	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	20:26	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	20:26	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	20:26	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	20:26	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	20:26	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	20:26	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	20:26	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	20:26	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	20:26	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	20:26	LB67237A
CCB04	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	21:11	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	21:11	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	21:11	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	21:11	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	21:11	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	21:11	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	21:11	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	21:11	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	21:11	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	21:11	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	21:11	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	21:11	LB67237A
CCB05	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	21:56	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	21:56	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	21:56	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	21:56	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	21:56	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	21:56	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	21:56	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	21:56	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	21:56	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	21:56	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	21:56	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	21:56	LB67237A
CCB06	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	22:42	LB67237A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	22:42	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	22:42	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	22:42	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	22:42	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	22:42	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	22:42	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	22:42	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	22:42	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	22:42	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	22:42	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	22:42	LB67237A
CCB07	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/08/2013	23:28	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/08/2013	23:28	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/08/2013	23:28	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/08/2013	23:28	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/08/2013	23:28	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/08/2013	23:28	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/08/2013	23:28	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/08/2013	23:28	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/08/2013	23:28	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/08/2013	23:28	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/08/2013	23:28	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/08/2013	23:28	LB67237A
CCB08	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/09/2013	00:13	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/09/2013	00:13	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/09/2013	00:13	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/09/2013	00:13	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/09/2013	00:13	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/09/2013	00:13	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/09/2013	00:13	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/09/2013	00:13	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/09/2013	00:13	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/09/2013	00:13	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/09/2013	00:13	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/09/2013	00:13	LB67237A
CCB09	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/09/2013	00:58	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/09/2013	00:58	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/09/2013	00:58	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/09/2013	00:58	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/09/2013	00:58	LB67237A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/09/2013	00:58	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/09/2013	00:58	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/09/2013	00:58	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/09/2013	00:58	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/09/2013	00:58	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/09/2013	00:58	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/09/2013	00:58	LB67237A
CCB10	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/09/2013	01:43	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/09/2013	01:43	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/09/2013	01:43	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/09/2013	01:43	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/09/2013	01:43	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/09/2013	01:43	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/09/2013	01:43	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/09/2013	01:43	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/09/2013	01:43	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/09/2013	01:43	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/09/2013	01:43	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/09/2013	01:43	LB67237A
CCB11	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/09/2013	02:27	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/09/2013	02:27	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/09/2013	02:27	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/09/2013	02:27	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/09/2013	02:27	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/09/2013	02:27	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/09/2013	02:27	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/09/2013	02:27	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/09/2013	02:27	LB67237A
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/09/2013	02:27	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/09/2013	02:27	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/09/2013	02:27	LB67237A
CCB12	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/09/2013	02:52	LB67237A
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/09/2013	02:52	LB67237A
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/09/2013	02:52	LB67237A
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/09/2013	02:52	LB67237A
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/09/2013	02:52	LB67237A
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/09/2013	02:52	LB67237A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/09/2013	02:52	LB67237A
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/09/2013	02:52	LB67237A
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/09/2013	02:52	LB67237A

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB12	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/09/2013	02:52	LB67237A
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/09/2013	02:52	LB67237A
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/09/2013	02:52	LB67237A

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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Instrument: P5

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	MDL mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB71399BL		**SOIL**		**Batch Number:**	**PB71399**			**Prep Date:**	**08/01/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	08/02/2013	19:24	LB67158
	Barium	0.200	<2.500	U	0.200	2.500	P	08/02/2013	19:24	LB67158
	Beryllium	0.030	<0.150	U	0.030	0.150	P	08/02/2013	19:24	LB67158
	Cadmium	0.030	<0.150	U	0.030	0.150	P	08/02/2013	19:24	LB67158
	Chromium	0.065	<0.250	U	0.065	0.250	P	08/02/2013	19:24	LB67158
	Copper	0.160	<0.500	U	0.160	0.500	P	08/02/2013	19:24	LB67158
	Lead	0.060	<0.300	U	0.060	0.300	P	08/02/2013	19:24	LB67158
	Manganese	0.095	<0.500	U	0.095	0.500	P	08/02/2013	19:24	LB67158
	Nickel	0.230	<1.000	U	0.230	1.000	P	08/02/2013	19:24	LB67158
	Selenium	0.205	<0.500	U	0.205	0.500	P	08/02/2013	19:24	LB67158
	Silver	0.075	<0.250	U	0.075	0.250	P	08/02/2013	19:24	LB67158
	Zinc	0.656	<1.000	J	0.350	1.000	P	08/02/2013	19:24	LB67158
PB71555BL		**SOIL**		**Batch Number:**	**PB71555**			**Prep Date:**	**08/07/2013**	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	08/07/2013	14:31	LB67209
PB71543BL		**SOIL**		**Batch Number:**	**PB71543**			**Prep Date:**	**08/07/2013**	
	Arsenic	0.165	<0.500	U	0.165	0.500	P	08/08/2013	19:30	LB67237A
	Barium	0.200	<2.500	U	0.200	2.500	P	08/08/2013	19:30	LB67237A
	Beryllium	0.030	<0.150	U	0.030	0.150	P	08/08/2013	19:30	LB67237A
	Cadmium	0.030	<0.150	U	0.030	0.150	P	08/08/2013	19:30	LB67237A
	Chromium	0.065	<0.250	U	0.065	0.250	P	08/08/2013	19:30	LB67237A
	Copper	0.160	<0.500	U	0.160	0.500	P	08/08/2013	19:30	LB67237A
	Lead	0.060	<0.300	U	0.060	0.300	P	08/08/2013	19:30	LB67237A
	Manganese	0.095	<0.500	U	0.095	0.500	P	08/08/2013	19:30	LB67237A
	Nickel	0.230	<1.000	U	0.230	1.000	P	08/08/2013	19:30	LB67237A
	Selenium	0.205	<0.500	U	0.205	0.500	P	08/08/2013	19:30	LB67237A
	Silver	0.075	<0.250	U	0.075	0.250	P	08/08/2013	19:30	LB67237A
	Zinc	0.350	<1.000	U	0.350	1.000	P	08/08/2013	19:30	LB67237A

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

ICS Source: EPA **Instrument ID:** P5

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	-0.24				08/02/2013	13:38	LB67158
	Barium	2.5	2	125.0	-9900 - 10100%	08/02/2013	13:38	LB67158
	Beryllium	-0.25				08/02/2013	13:38	LB67158
	Cadmium	1.9				08/02/2013	13:38	LB67158
	Chromium	49.6	43	115.3	77 - 123%	08/02/2013	13:38	LB67158
	Copper	22.6	23	98.3	-9 - 209%	08/02/2013	13:38	LB67158
	Lead	10.0	10	100.0	0 - 200%	08/02/2013	13:38	LB67158
	Manganese	19.3	19	101.6	21 - 179%	08/02/2013	13:38	LB67158
	Nickel	23.9	21	113.8	-90 - 290%	08/02/2013	13:38	LB67158
	Selenium	7.7				08/02/2013	13:38	LB67158
	Silver	-2.2				08/02/2013	13:38	LB67158
	Zinc	29.5	28	105.4	-114 - 314%	08/02/2013	13:38	LB67158
ICSAB01	Arsenic	104	101	103.0	80 - 120%	08/02/2013	13:41	LB67158
	Barium	521	517	100.8	60 - 140%	08/02/2013	13:41	LB67158
	Beryllium	515	504	102.2	80 - 120%	08/02/2013	13:41	LB67158
	Cadmium	1020	989	103.1	80 - 120%	08/02/2013	13:41	LB67158
	Chromium	527	519	101.5	80 - 120%	08/02/2013	13:41	LB67158
	Copper	531	550	96.5	80 - 120%	08/02/2013	13:41	LB67158
	Lead	61.2	58	105.5	80 - 120%	08/02/2013	13:41	LB67158
	Manganese	507	507	100.0	80 - 120%	08/02/2013	13:41	LB67158
	Nickel	1050	983	106.8	80 - 120%	08/02/2013	13:41	LB67158
	Selenium	52.3	51	102.5	34 - 166%	08/02/2013	13:41	LB67158
	Silver	200	205	97.6	80 - 120%	08/02/2013	13:41	LB67158
	Zinc	1050	1028	102.1	80 - 120%	08/02/2013	13:41	LB67158
ICSA01	Arsenic	1.7				08/05/2013	12:59	LB67176
	Barium	5.6	2	280.0	-9900 - 10100%	08/05/2013	12:59	LB67176
	Beryllium	-0.077				08/05/2013	12:59	LB67176
	Cadmium	2.5				08/05/2013	12:59	LB67176
	Chromium	47.9	43	111.4	77 - 123%	08/05/2013	12:59	LB67176
	Copper	25.0	23	108.7	-9 - 209%	08/05/2013	12:59	LB67176
	Lead	10.4	10	104.0	0 - 200%	08/05/2013	12:59	LB67176
	Manganese	20.4	19	107.4	21 - 179%	08/05/2013	12:59	LB67176
	Nickel	22.2	21	105.7	-90 - 290%	08/05/2013	12:59	LB67176
	Selenium	4.9				08/05/2013	12:59	LB67176
	Silver	-1.2				08/05/2013	12:59	LB67176
	Zinc	30.4	28	108.6	-114 - 314%	08/05/2013	12:59	LB67176
ICSAB01	Arsenic	103	101	102.0	80 - 120%	08/05/2013	13:02	LB67176
	Barium	524	517	101.4	60 - 140%	08/05/2013	13:02	LB67176
	Beryllium	526	504	104.4	80 - 120%	08/05/2013	13:02	LB67176
	Cadmium	1020	989	103.1	80 - 120%	08/05/2013	13:02	LB67176
	Chromium	524	519	101.0	80 - 120%	08/05/2013	13:02	LB67176
	Copper	536	550	97.5	80 - 120%	08/05/2013	13:02	LB67176
	Lead	57.9	58	99.8	80 - 120%	08/05/2013	13:02	LB67176
	Manganese	520	507	102.6	80 - 120%	08/05/2013	13:02	LB67176

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

ICS Source: EPA **Instrument ID:** P5

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSAB01	Nickel	1020	983	103.8	80 - 120%	08/05/2013	13:02	LB67176
	Selenium	56.0	51	109.8	34 - 166%	08/05/2013	13:02	LB67176
	Silver	201	205	98.0	80 - 120%	08/05/2013	13:02	LB67176
	Zinc	1060	1028	103.1	80 - 120%	08/05/2013	13:02	LB67176
ICSA01	Arsenic	1.7				08/05/2013	12:59	LB67208
	Barium	5.6	2	280.0	-9900 - 10100%	08/05/2013	12:59	LB67208
	Beryllium	-0.077				08/05/2013	12:59	LB67208
	Cadmium	2.5				08/05/2013	12:59	LB67208
	Chromium	47.9	43	111.4	77 - 123%	08/05/2013	12:59	LB67208
	Copper	25.0	23	108.7	-9 - 209%	08/05/2013	12:59	LB67208
	Lead	10.4	10	104.0	0 - 200%	08/05/2013	12:59	LB67208
	Manganese	20.4	19	107.4	21 - 179%	08/05/2013	12:59	LB67208
	Nickel	22.2	21	105.7	-90 - 290%	08/05/2013	12:59	LB67208
	Selenium	4.9				08/05/2013	12:59	LB67208
	Silver	-1.2				08/05/2013	12:59	LB67208
	Zinc	30.4	28	108.6	-114 - 314%	08/05/2013	12:59	LB67208
ICSAB01	Arsenic	103	101	102.0	80 - 120%	08/05/2013	13:02	LB67208
	Barium	524	517	101.4	60 - 140%	08/05/2013	13:02	LB67208
	Beryllium	526	504	104.4	80 - 120%	08/05/2013	13:02	LB67208
	Cadmium	1020	989	103.1	80 - 120%	08/05/2013	13:02	LB67208
	Chromium	524	519	101.0	80 - 120%	08/05/2013	13:02	LB67208
	Copper	536	550	97.5	80 - 120%	08/05/2013	13:02	LB67208
	Lead	57.9	58	99.8	80 - 120%	08/05/2013	13:02	LB67208
	Manganese	520	507	102.6	80 - 120%	08/05/2013	13:02	LB67208
	Nickel	1020	983	103.8	80 - 120%	08/05/2013	13:02	LB67208
	Selenium	56.0	51	109.8	34 - 166%	08/05/2013	13:02	LB67208
	Silver	201	205	98.0	80 - 120%	08/05/2013	13:02	LB67208
	Zinc	1060	1028	103.1	80 - 120%	08/05/2013	13:02	LB67208
ICSA01	Arsenic	1.3				08/08/2013	18:45	LB67237A
	Barium	2.0	2	100.0	-9900 - 10100%	08/08/2013	18:45	LB67237A
	Beryllium	0.64				08/08/2013	18:45	LB67237A
	Cadmium	1.0				08/08/2013	18:45	LB67237A
	Chromium	43.0	43	100.0	77 - 123%	08/08/2013	18:45	LB67237A
	Copper	21.7	23	94.3	-9 - 209%	08/08/2013	18:45	LB67237A
	Lead	10.5	10	105.0	0 - 200%	08/08/2013	18:45	LB67237A
	Manganese	22.6	19	118.9	21 - 179%	08/08/2013	18:45	LB67237A
	Nickel	18.1	21	86.2	-90 - 290%	08/08/2013	18:45	LB67237A
	Selenium	-0.25				08/08/2013	18:45	LB67237A
	Silver	-3.5				08/08/2013	18:45	LB67237A
	Zinc	32.0	28	114.3	-114 - 314%	08/08/2013	18:45	LB67237A
ICSAB01	Arsenic	103	101	102.0	80 - 120%	08/08/2013	18:48	LB67237A
	Barium	506	517	97.9	60 - 140%	08/08/2013	18:48	LB67237A
	Beryllium	514	504	102.0	80 - 120%	08/08/2013	18:48	LB67237A
	Cadmium	971	989	98.2	80 - 120%	08/08/2013	18:48	LB67237A

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSAB01	Chromium	521	519	100.4	80 - 120%	08/08/2013	18:48	LB67237A
	Copper	497	550	90.4	80 - 120%	08/08/2013	18:48	LB67237A
	Lead	58.0	61	95.1	80 - 120%	08/08/2013	18:48	LB67237A
	Manganese	505	507	99.6	80 - 120%	08/08/2013	18:48	LB67237A
	Nickel	984	983	100.1	80 - 120%	08/08/2013	18:48	LB67237A
	Selenium	44.6	51	87.5	34 - 166%	08/08/2013	18:48	LB67237A
	Silver	197	205	96.1	80 - 120%	08/08/2013	18:48	LB67237A
	Zinc	1010	986	102.4	80 - 120%	08/08/2013	18:48	LB67237A

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133

contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133

matrix: SOIL **sample id:** E3133-10 **client id:** CS-C-03S

Percent Solids for Sample: 96.4 **Spiked ID:** E3133-10S **Percent Solids for Spike Sample:** 96.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 114	41.9101		4.6805		40.68	91.5		P
Barium	mg/Kg	39 - 158	81.1090		60.5955		10.17	201.7		P
Beryllium	mg/Kg	79 - 112	9.3677		0.0516	J	10.17	91.6		P
Cadmium	mg/Kg	73 - 114	10.7084		0.7416		10.17	98.0		P
Chromium	mg/Kg	68 - 122	26.3561		11.3715		20.34	73.7		P
Copper	mg/Kg	59 - 132	27.0168		13.2956		15.26	89.9		P
Lead	mg/Kg	66 - 125	56.2732		10.9137		50.85	89.2		P
Manganese	mg/Kg	10 - 205	393.8694		503.8817		10.17	-1081.7		P
Nickel	mg/Kg	64 - 129	41.0112		17.6340		25.43	91.9		P
Selenium	mg/Kg	69 - 105	87.9761		3.0461		101.70	83.5		P
Silver	mg/Kg	54 - 131	3.0390		0.0763	U	3.81	79.8		P
Zinc	mg/Kg	67 - 127	56.7426		41.9250		10.17	145.7		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133
contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133
matrix: SOIL **sample id:** E3133-10 **client id:** CS-C-03SD
Percent Solids for Sample: 96.4 **Spiked ID:** E3133-10SD **Percent Solids for Spike Sample:** 96.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 114	42.0641		4.6805		40.48	92.4		P
Barium	mg/Kg	39 - 158	80.0622		60.5955		10.12	192.4		P
Beryllium	mg/Kg	79 - 112	9.3024		0.0516	J	10.12	91.4		P
Cadmium	mg/Kg	73 - 114	10.6441		0.7416		10.12	97.9		P
Chromium	mg/Kg	68 - 122	26.2311		11.3715		20.24	73.4		P
Copper	mg/Kg	59 - 132	27.0045		13.2956		15.18	90.3		P
Lead	mg/Kg	66 - 125	55.9761		10.9137		50.60	89.1		P
Manganese	mg/Kg	10 - 205	401.1533		503.8817		10.12	-1015.1		P
Nickel	mg/Kg	64 - 129	40.8939		17.6340		25.30	91.9		P
Selenium	mg/Kg	69 - 105	87.3379		3.0461		101.20	83.3		P
Silver	mg/Kg	54 - 131	3.0105		0.0759	U	3.80	79.2		P
Zinc	mg/Kg	67 - 127	55.9054		41.9250		10.12	138.1		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133

contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133

matrix: SOIL **sample id:** E3133-27 **client id:** CS-C-06S

Percent Solids for Sample: 94.2 **Spiked ID:** E3133-28S **Percent Solids for Spike Sample:** 94.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	44.0083		6.0360		41.23	92.1		P
Barium	mg/Kg	39 - 158	54.3360		41.5324		10.31	124.2		P
Beryllium	mg/Kg	79 - 112	9.7737		0.1688		10.31	93.2		P
Cadmium	mg/Kg	73 - 114	11.5114		0.2536		10.31	109.2		P
Chromium	mg/Kg	68 - 122	25.9291		6.5650		20.61	94.0		P
Copper	mg/Kg	59 - 132	24.7135		12.3170		15.46	80.2		P
Lead	mg/Kg	66 - 125	64.4518		7.8860		51.53	109.8		P
Manganese	mg/Kg	10 - 205	324.4800		326.3061		10.31	-17.7		P
Mercury	mg/Kg	34 - 153	0.2046		0.0031	J	0.21	96.0		CV
Nickel	mg/Kg	64 - 129	42.7525		13.0492		25.77	115.3		P
Selenium	mg/Kg	69 - 105	91.9754		0.2113	U	103.07	89.2		P
Silver	mg/Kg	54 - 131	3.3269		0.0773	U	3.86	86.2		P
Zinc	mg/Kg	67 - 127	64.9001		47.6391		10.31	167.4		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133

contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133

matrix: SOIL **sample id:** E3133-27 **client id:** CS-C-06SD

Percent Solids for Sample: 94.2 **Spiked ID:** E3133-29SD **Percent Solids for Spike Sample:** 94.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	41.5233		6.0360		40.83	86.9		P
Barium	mg/Kg	39 - 158	51.4148		41.5324		10.21	96.8		P
Beryllium	mg/Kg	79 - 112	9.2102		0.1688		10.21	88.6		P
Cadmium	mg/Kg	73 - 114	10.7821		0.2536		10.21	103.1		P
Chromium	mg/Kg	68 - 122	24.5136		6.5650		20.41	87.9		P
Copper	mg/Kg	59 - 132	23.4041		12.3170		15.31	72.4		P
Lead	mg/Kg	66 - 125	60.2340		7.8860		51.04	102.6		P
Manganese	mg/Kg	10 - 205	307.8812		326.3061		10.21	-180.5		P
Mercury	mg/Kg	34 - 153	0.2092		0.0031	J	0.21	98.1		CV
Nickel	mg/Kg	64 - 129	39.9804		13.0492		25.52	105.5		P
Selenium	mg/Kg	69 - 105	86.9825		0.2093	U	102.07	85.2		P
Silver	mg/Kg	54 - 131	3.1541		0.0766	U	3.83	82.4		P
Zinc	mg/Kg	67 - 127	59.3408		47.6391		10.21	114.6		P

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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133

contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133

matrix: SOIL **sample id:** E3210-08 **client id:** BH14(9-11)S NOA - program Single

Percent Solids for Sample: 80.6 **Spiked ID:** E3210-09S **Percent Solids for Spike Sample:** 80.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	42.6119		4.4338		47.72	80.0		P
Barium	mg/Kg	39 - 158	64.5937		60.1349		11.93	37.4		P
Beryllium	mg/Kg	79 - 112	10.1331		0.2825		11.93	82.6		P
Cadmium	mg/Kg	73 - 114	12.3145		0.4282		11.93	99.6		P
Chromium	mg/Kg	68 - 122	29.3395		11.5573		23.86	74.5		P
Copper	mg/Kg	59 - 132	36.0380		12.9586		17.89	129.0		P
Lead	mg/Kg	66 - 125	64.3074		7.4918		59.65	95.2		P
Manganese	mg/Kg	10 - 205	378.0182		417.6655		11.93	-332.3		P
Nickel	mg/Kg	64 - 129	44.7742		15.9540		29.82	96.6		P
Selenium	mg/Kg	69 - 105	94.5851		0.2446	U	119.30	79.3		P
Silver	mg/Kg	54 - 131	3.4519		0.0895	U	4.47	77.2		P
Zinc	mg/Kg	67 - 127	55.3666		41.1002		11.93	119.6		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3133

contract: VIAS01 **lab code:** CHEM **case no.:** E3133 **sas no.:** E3133

matrix: SOIL **sample id:** E3210-08 **client id:** BH14(9-11)SD non-program sample

Percent Solids for Sample: 80.6 **Spiked ID:** E3210-10SD **Percent Solids for Spike Sample:** 80.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	42.1765		4.4338		47.49	79.5		P
Barium	mg/Kg	39 - 158	63.3467		60.1349		11.87	27.1		P
Beryllium	mg/Kg	79 - 112	9.9944		0.2825		11.87	81.8		P
Cadmium	mg/Kg	73 - 114	12.1541		0.4282		11.87	98.8		P
Chromium	mg/Kg	68 - 122	28.8940		11.5573		23.75	73.0		P
Copper	mg/Kg	59 - 132	38.4449		12.9586		17.81	143.1	N	P
Lead	mg/Kg	66 - 125	63.6851		7.4918		59.36	94.7		P
Manganese	mg/Kg	10 - 205	372.5765		417.6655		11.87	-379.9		P
Nickel	mg/Kg	64 - 129	43.9907		15.9540		29.68	94.5		P
Selenium	mg/Kg	69 - 105	93.1293		0.2434	U	118.73	78.4		P
Silver	mg/Kg	54 - 131	3.4502		0.0890	U	4.45	77.5		P
Zinc	mg/Kg	67 - 127	57.3361		41.1002		11.87	136.8	N	P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: WATER **Level:** LOW **Client ID:** BH14(9-11)A

Sample ID: E3210-08 **Spiked ID:** E3210-08A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/L	27 - 111	212.75		116.98		150.0	63.8		P
Zinc	ug/L	75 - 125	474.02		371.02		100.0	103.0		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3133-10 **Client ID:** CS-C-03D

Percent Solids for Sample: 96.4 **Duplicate ID** E3133-10D **Percent Solids for Spike Sample:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	4.6805		4.6542		0.6		P
Barium	mg/Kg	20	60.5955		60.8567		0.4		P
Beryllium	mg/Kg	20	0.0516	J	0.0524	J	1.5		P
Cadmium	mg/Kg	20	0.7416		0.7390		0.4		P
Chromium	mg/Kg	20	11.3715		12.2205		7.2		P
Copper	mg/Kg	20	13.2956		13.5592		2.0		P
Lead	mg/Kg	20	10.9137		10.0319		8.4		P
Manganese	mg/Kg	20	503.8817		465.9503		7.8		P
Nickel	mg/Kg	20	17.6340		18.4646		4.6		P
Selenium	mg/Kg	20	3.0461		3.2822		7.5		P
Silver	mg/Kg	20	0.0643	U	0.0643	U			P
Zinc	mg/Kg	20	41.9250		44.1505		5.2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3133-10 **Client ID:** CS-C-03SD

Percent Solids for Sample: 96.4 **Duplicate ID** E3133-10SD **Percent Solids for Spike Sample:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	41.9101		42.0641		0.4		P
Barium	mg/Kg	20	81.1090		80.0622		1.3		P
Beryllium	mg/Kg	20	9.3677		9.3024		0.7		P
Cadmium	mg/Kg	20	10.7084		10.6441		0.6		P
Chromium	mg/Kg	20	26.3561		26.2311		0.5		P
Copper	mg/Kg	20	27.0168		27.0045		0.0		P
Lead	mg/Kg	20	56.2732		55.9761		0.5		P
Manganese	mg/Kg	20	393.8694		401.1533		1.8		P
Nickel	mg/Kg	20	41.0112		40.8939		0.3		P
Selenium	mg/Kg	20	87.9761		87.3379		0.7		P
Silver	mg/Kg	20	3.0390		3.0105		0.9		P
Zinc	mg/Kg	20	56.7427		55.9054		1.5		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3133-27 **Client ID:** CS-C-06D

Percent Solids for Sample: 94.2 **Duplicate ID** E3133-27D **Percent Solids for Spike Sample:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	6.0360		6.0710		0.6		P
Barium	mg/Kg	20	41.5324		41.0882		1.1		P
Beryllium	mg/Kg	20	0.1688		0.1690		0.1		P
Cadmium	mg/Kg	20	0.2536		0.2484		2.1		P
Chromium	mg/Kg	20	6.5650		6.4341		2.0		P
Copper	mg/Kg	20	12.3170		11.8410		3.9		P
Lead	mg/Kg	20	7.8860		7.5733		4.0		P
Manganese	mg/Kg	20	326.3061		317.4678		2.7		P
Mercury	mg/Kg	20	0.0031	J	0.0031	J	0.0		CV
Nickel	mg/Kg	20	13.0492		12.8379		1.6		P
Selenium	mg/Kg	20	0.1829	U	0.1829	U			P
Silver	mg/Kg	20	0.0669	U	0.0669	U			P
Zinc	mg/Kg	20	47.6391		46.3255		2.8		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3133-27 **Client ID:** CS-C-06SD

Percent Solids for Sample: 94.2 **Duplicate ID** E3133-29SD **Percent Solids for Spike Sample:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	44.0083		41.5233		5.8		P
Barium	mg/Kg	20	54.3360		51.4148		5.5		P
Beryllium	mg/Kg	20	9.7737		9.2102		5.9		P
Cadmium	mg/Kg	20	11.5114		10.7821		6.5		P
Chromium	mg/Kg	20	25.9291		24.5136		5.6		P
Copper	mg/Kg	20	24.7135		23.4041		5.4		P
Lead	mg/Kg	20	64.4518		60.2340		6.8		P
Manganese	mg/Kg	20	324.4801		307.8812		5.2		P
Mercury	mg/Kg	20	0.2046		0.2092		2.2		CV
Nickel	mg/Kg	20	42.7525		39.9804		6.7		P
Selenium	mg/Kg	20	91.9754		86.9825		5.6		P
Silver	mg/Kg	20	3.3269		3.1541		5.3		P
Zinc	mg/Kg	20	64.9001		59.3408		8.9		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3210-08 **Client ID:** BH14(9-11)D non-program sample

Percent Solids for Sample: 80.6 **Duplicate ID** E3210-08D **Percent Solids for Spike Sample:** 80.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	4.4338		4.3240		2.5		P
Barium	mg/Kg	20	60.1349		65.1868		8.1		P
Beryllium	mg/Kg	20	0.2825		0.2928		3.6		P
Cadmium	mg/Kg	20	0.4282		0.3594		17.5		P
Chromium	mg/Kg	20	11.5573		12.2024		5.4		P
Copper	mg/Kg	20	12.9586		14.2194		9.3		P
Lead	mg/Kg	20	7.4918		7.0440		6.2		P
Manganese	mg/Kg	20	417.6655		399.3417		4.5		P
Nickel	mg/Kg	20	15.9540		16.4985		3.4		P
Selenium	mg/Kg	20	0.2291	U	0.2291	U			P
Silver	mg/Kg	20	0.0838	U	0.0838	U			P
Zinc	mg/Kg	20	41.1002		44.9070		8.9		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Matrix: SOIL **Sample ID:** E3210-08 **Client ID:** BH14(9-11)SD non-program sample

Percent Solids for Sample: 80.6 **Duplicate ID** E3210-10SD **Percent Solids for Spike Sample:** 80.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	42.6119		42.1765		1.0		P
Barium	mg/Kg	20	64.5937		63.3467		1.9		P
Beryllium	mg/Kg	20	10.1331		9.9944		1.4		P
Cadmium	mg/Kg	20	12.3145		12.1541		1.3		P
Chromium	mg/Kg	20	29.3395		28.8940		1.5		P
Copper	mg/Kg	20	36.0380		38.4449		6.5		P
Lead	mg/Kg	20	64.3074		63.6851		1.0		P
Manganese	mg/Kg	20	378.0183		372.5765		1.4		P
Nickel	mg/Kg	20	44.7742		43.9907		1.8		P
Selenium	mg/Kg	20	94.5851		93.1293		1.6		P
Silver	mg/Kg	20	3.4519		3.4502		0.0		P
Zinc	mg/Kg	20	55.3666		57.3361		3.5		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71399BS							
Arsenic	mg/Kg	40.0	39.2		98.0	82 - 112	P
Barium	mg/Kg	10.0	10.4		104.0	83 - 118	P
Beryllium	mg/Kg	10.0	10.2		102.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.8		98.0	82 - 117	P
Chromium	mg/Kg	20.0	19.9		99.5	84 - 115	P
Copper	mg/Kg	15.0	15.5		103.3	80 - 115	P
Lead	mg/Kg	50.0	48.8		97.6	82 - 117	P
Manganese	mg/Kg	10.0	10.5		105.0	84 - 114	P
Nickel	mg/Kg	25.0	24.5		98.0	85 - 118	P
Selenium	mg/Kg	100.0	97.5		97.5	74 - 110	P
Silver	mg/Kg	3.8	3.5		93.3	81 - 123	P
Zinc	mg/Kg	10.0	10.8		108.0	88 - 127	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71543BS							
Arsenic	mg/Kg	40.0	38.6		96.5	82 - 112	P
Barium	mg/Kg	10.0	10.1		101.0	83 - 118	P
Beryllium	mg/Kg	10.0	9.7		97.0	84 - 113	P
Cadmium	mg/Kg	10.0	9.4		94.0	82 - 117	P
Chromium	mg/Kg	20.0	19.9		99.5	84 - 115	P
Copper	mg/Kg	15.0	15.4		102.7	80 - 115	P
Lead	mg/Kg	50.0	47.9		95.8	82 - 117	P
Manganese	mg/Kg	10.0	10.1		101.0	84 - 114	P
Nickel	mg/Kg	25.0	24.2		96.8	85 - 118	P
Selenium	mg/Kg	100.0	97.5		97.5	74 - 110	P
Silver	mg/Kg	3.8	3.4		90.7	81 - 123	P
Zinc	mg/Kg	10.0	10.0		100.0	88 - 127	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3133

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3133 **SAS No.:** E3133

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71555BS							
Mercury	mg/Kg	0.200	0.190		95.0	73 - 121	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CS-C-03L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3133 **SAS No.:** E3133 **SDG No.:** E3133

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	54.37		68.48		26.0		P
Barium	703.89		798.03		13.4		P
Beryllium	0.60	J	1.75	U	100.0		P
Cadmium	8.61		7.44	J	13.6		P
Chromium	132.09		162.86		23.3		P
Copper	154.44		176.96		14.6		P
Lead	126.78		132.70		4.7		P
Manganese	5853.19		7174.73		22.6		P
Nickel	204.84		213.76		4.4		P
Selenium	35.38		43.69		23.5		P
Silver	0.75	U	3.75	U			P
Zinc	487.01		574.97		18.1		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CS-C-06L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3133 **SAS No.:** E3133 **SDG No.:** E3133

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	66.53		78.28		17.7		P
Barium	457.75		532.50		16.3		P
Beryllium	1.86		2.45	J	31.7		P
Cadmium	2.80		1.25	U	100.0		P
Chromium	72.36		86.48		19.5		P
Copper	135.75		174.15		28.3		P
Lead	86.92		87.93		1.2		P
Manganese	3596.35		4487.50		24.8		P
Mercury	0.09	U	0.46	U			CV
Nickel	143.82		137.20		4.6		P
Selenium	2.40	U	12.00	U			P
Silver	0.75	U	3.75	U			P
Zinc	525.05		517.73		1.4		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

BH14(9-11)L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01 non-program Sample.

Lab Code: CHEM **Case No.:** E3133 **SAS No.:** E3133 **SDG No.:** E3133

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	40.03		39.18		2.1		P
Barium	542.85		640.83		18.0		P
Beryllium	2.55		3.48	J	36.5	✓	P
Cadmium	3.87		1.25	U	100.0	✓	P
Chromium	104.33		131.15		25.7		P
Copper	116.98		159.25		36.1		P
Lead	67.63		74.15		9.6		P
Manganese	3770.35		4965.75		31.7		P
Nickel	144.02		142.25		1.2		P
Selenium	2.40	U	12.00	U			P
Silver	0.75	U	3.75	U			P
Zinc	371.02		375.95		1.3		P

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-08	SDG No.:	E3133
Lab Sample ID:	E3133-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5.3
Sample Wt/Vol:	5.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038732.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.44	U	0.44	0.44	4.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.44	U	0.44	0.44	4.4	ug/Kg
67-64-1	Acetone	2.2	U	2.2	2.2	22.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.44	U	0.44	0.44	4.4	ug/Kg
75-09-2	Methylene Chloride	0.44	U	0.44	0.44	4.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.44	U	0.44	0.44	4.4	ug/Kg
75-34-3	1,1-Dichloroethane	0.44	U	0.44	0.44	4.4	ug/Kg
78-93-3	2-Butanone	6.7	U	2.8	6.7	22.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.44	U	0.44	0.44	4.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.44	U	0.44	0.44	4.4	ug/Kg
67-66-3	Chloroform	0.44	U	0.44	0.44	4.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.44	U	0.44	0.44	4.4	ug/Kg
71-43-2	Benzene	0.44	U	0.34	0.44	4.4	ug/Kg
107-06-2	1,2-Dichloroethane	0.44	U	0.44	0.44	4.4	ug/Kg
79-01-6	Trichloroethene	0.44	U	0.44	0.44	4.4	ug/Kg
108-88-3	Toluene	0.44	U	0.44	0.44	4.4	ug/Kg
127-18-4	Tetrachloroethene	0.44	U	0.44	0.44	4.4	ug/Kg
108-90-7	Chlorobenzene	0.44	U	0.44	0.44	4.4	ug/Kg
100-41-4	Ethyl Benzene	0.44	U	0.44	0.44	4.4	ug/Kg
1330-20-7	Total Xylenes	1.33	U	1.08	1.33	13.3	ug/Kg
103-65-1	n-propylbenzene	0.44	U	0.32	0.44	4.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.44	U	0.4	0.44	4.4	ug/Kg
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.44	4.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.44	U	0.44	0.44	4.4	ug/Kg
135-98-8	sec-Butylbenzene	0.44	U	0.44	0.44	4.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.44	U	0.33	0.44	4.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.44	U	0.36	0.44	4.4	ug/Kg
104-51-8	n-Butylbenzene	0.44	U	0.41	0.44	4.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.44	U	0.44	0.44	4.4	ug/Kg
123-91-1	1,4-Dioxane	88.9	U	88.9	88.9	88.9	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-08	SDG No.:	E3133
Lab Sample ID:	E3133-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5.3
Sample Wt/Vol:	5.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038732.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	46.3		56 - 120		93%	SPK: 50
1868-53-7	Dibromofluoromethane	44.1		57 - 135		88%	SPK: 50
2037-26-5	Toluene-d8	46.4		67 - 123		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	40		33 - 141		80%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	167801	4.4				
540-36-3	1,4-Difluorobenzene	265457	5.15				
3114-55-4	Chlorobenzene-d5	249480	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	86640	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-09	SDG No.:	E3133
Lab Sample ID:	E3133-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.3
Sample Wt/Vol:	5.38 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038733.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
75-35-4	1,1-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-64-1	Acetone	2.4	U	2.4	2.4	24	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.48	U	0.48	0.48	4.8	ug/Kg
75-09-2	Methylene Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
75-34-3	1,1-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
78-93-3	2-Butanone	7.2	U	3	7.2	24	ug/Kg
56-23-5	Carbon Tetrachloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-66-3	Chloroform	0.48	U	0.48	0.48	4.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
71-43-2	Benzene	0.48	U	0.37	0.48	4.8	ug/Kg
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
79-01-6	Trichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-88-3	Toluene	0.48	U	0.48	0.48	4.8	ug/Kg
127-18-4	Tetrachloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-90-7	Chlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
100-41-4	Ethyl Benzene	0.48	U	0.48	0.48	4.8	ug/Kg
1330-20-7	Total Xylenes	1.44	U	1.17	1.44	14.4	ug/Kg
103-65-1	n-propylbenzene	0.48	U	0.35	0.48	4.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.48	U	0.43	0.48	4.8	ug/Kg
98-06-6	tert-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
135-98-8	sec-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.48	U	0.36	0.48	4.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.48	U	0.39	0.48	4.8	ug/Kg
104-51-8	n-Butylbenzene	0.48	U	0.44	0.48	4.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
123-91-1	1,4-Dioxane	96.1	U	96.1	96.1	96.1	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-09	SDG No.:	E3133
Lab Sample ID:	E3133-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.3
Sample Wt/Vol:	5.38 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038733.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.8		56 - 120		89%	SPK: 50
1868-53-7	Dibromofluoromethane	43.5		57 - 135		87%	SPK: 50
2037-26-5	Toluene-d8	43.5		67 - 123		87%	SPK: 50
460-00-4	4-Bromofluorobenzene	37		33 - 141		74%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	178896	4.41				
540-36-3	1,4-Difluorobenzene	275333	5.15				
3114-55-4	Chlorobenzene-d5	248448	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	89200	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-10	SDG No.:	E3133
Lab Sample ID:	E3133-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.3
Sample Wt/Vol:	5.36 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038734.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
75-35-4	1,1-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-64-1	Acetone	2.4	U	2.4	2.4	24.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.48	U	0.48	0.48	4.8	ug/Kg
75-09-2	Methylene Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
75-34-3	1,1-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
78-93-3	2-Butanone	7.2	U	3	7.2	24.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-66-3	Chloroform	0.48	U	0.48	0.48	4.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
71-43-2	Benzene	0.48	U	0.37	0.48	4.8	ug/Kg
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
79-01-6	Trichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-88-3	Toluene	0.48	U	0.48	0.48	4.8	ug/Kg
127-18-4	Tetrachloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-90-7	Chlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
100-41-4	Ethyl Benzene	0.48	U	0.48	0.48	4.8	ug/Kg
1330-20-7	Total Xylenes	1.44	U	1.17	1.44	14.4	ug/Kg
103-65-1	n-propylbenzene	0.48	U	0.35	0.48	4.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.48	U	0.43	0.48	4.8	ug/Kg
98-06-6	tert-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
135-98-8	sec-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.48	U	0.36	0.48	4.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.48	U	0.4	0.48	4.8	ug/Kg
104-51-8	n-Butylbenzene	0.48	U	0.44	0.48	4.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
123-91-1	1,4-Dioxane	96.5	U	96.5	96.5	96.5	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-10	SDG No.:	E3133
Lab Sample ID:	E3133-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	3.3
Sample Wt/Vol:	5.36 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038734.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	45.4		56 - 120		91%	SPK: 50
1868-53-7	Dibromofluoromethane	42.2		57 - 135		84%	SPK: 50
2037-26-5	Toluene-d8	45.2		67 - 123		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.1		33 - 141		76%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	161579	4.42				
540-36-3	1,4-Difluorobenzene	257761	5.15				
3114-55-4	Chlorobenzene-d5	236550	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	83920	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-11	SDG No.:	E3133
Lab Sample ID:	E3133-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.7
Sample Wt/Vol:	5.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038735.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.5	0.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-64-1	Acetone	2.5	U	2.5	2.5	24.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.5	0.5	5	ug/Kg
75-09-2	Methylene Chloride	0.5	U	0.5	0.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
78-93-3	2-Butanone	7.5	U	3.1	7.5	24.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.5	U	0.5	0.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-66-3	Chloroform	0.5	U	0.5	0.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.5	U	0.5	0.5	5	ug/Kg
71-43-2	Benzene	0.5	U	0.38	0.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
79-01-6	Trichloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-88-3	Toluene	0.5	U	0.5	0.5	5	ug/Kg
127-18-4	Tetrachloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-90-7	Chlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	0.5	U	0.5	0.5	5	ug/Kg
1330-20-7	Total Xylenes	1.49	U	1.22	1.49	14.9	ug/Kg
103-65-1	n-propylbenzene	0.5	U	0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.5	U	0.37	0.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.5	U	0.41	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	0.5	U	0.46	0.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
123-91-1	1,4-Dioxane	99.4	U	99.4	99.4	99.4	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-11	SDG No.:	E3133
Lab Sample ID:	E3133-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.7
Sample Wt/Vol:	5.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038735.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	42.6		56 - 120		85%	SPK: 50
1868-53-7	Dibromofluoromethane	43		57 - 135		86%	SPK: 50
2037-26-5	Toluene-d8	44.4		67 - 123		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.8		33 - 141		75%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	160307	4.41				
540-36-3	1,4-Difluorobenzene	253672	5.15				
3114-55-4	Chlorobenzene-d5	236973	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	81996	12.26				

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MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-12	SDG No.:	E3133
Lab Sample ID:	E3133-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.7
Sample Wt/Vol:	6.13 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038736.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.43	U	0.43	0.43	4.3	ug/Kg
75-35-4	1,1-Dichloroethene	0.43	U	0.43	0.43	4.3	ug/Kg
67-64-1	Acetone	2.1	U	2.1	2.1	21.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.43	U	0.43	0.43	4.3	ug/Kg
75-09-2	Methylene Chloride	0.43	U	0.43	0.43	4.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.43	U	0.43	0.43	4.3	ug/Kg
75-34-3	1,1-Dichloroethane	0.43	U	0.43	0.43	4.3	ug/Kg
78-93-3	2-Butanone	6.4	U	2.7	6.4	21.4	ug/Kg
56-23-5	Carbon Tetrachloride	0.43	U	0.43	0.43	4.3	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.43	U	0.43	0.43	4.3	ug/Kg
67-66-3	Chloroform	0.43	U	0.43	0.43	4.3	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.43	U	0.43	0.43	4.3	ug/Kg
71-43-2	Benzene	0.43	U	0.33	0.43	4.3	ug/Kg
107-06-2	1,2-Dichloroethane	0.43	U	0.43	0.43	4.3	ug/Kg
79-01-6	Trichloroethene	0.43	U	0.43	0.43	4.3	ug/Kg
108-88-3	Toluene	0.43	U	0.43	0.43	4.3	ug/Kg
127-18-4	Tetrachloroethene	0.43	U	0.43	0.43	4.3	ug/Kg
108-90-7	Chlorobenzene	0.43	U	0.43	0.43	4.3	ug/Kg
100-41-4	Ethyl Benzene	0.43	U	0.43	0.43	4.3	ug/Kg
1330-20-7	Total Xylenes	1.29	U	1.05	1.29	12.9	ug/Kg
103-65-1	n-propylbenzene	0.43	U	0.31	0.43	4.3	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.43	U	0.39	0.43	4.3	ug/Kg
98-06-6	tert-Butylbenzene	0.43	U	0.43	0.43	4.3	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.43	U	0.43	0.43	4.3	ug/Kg
135-98-8	sec-Butylbenzene	0.43	U	0.43	0.43	4.3	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.43	U	0.32	0.43	4.3	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.43	U	0.35	0.43	4.3	ug/Kg
104-51-8	n-Butylbenzene	0.43	U	0.39	0.43	4.3	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.43	U	0.43	0.43	4.3	ug/Kg
123-91-1	1,4-Dioxane	85.6	U	85.6	85.6	85.6	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-12	SDG No.:	E3133
Lab Sample ID:	E3133-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.7
Sample Wt/Vol:	6.13 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038736.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	45.5		56 - 120		91%	SPK: 50
1868-53-7	Dibromofluoromethane	45		57 - 135		90%	SPK: 50
2037-26-5	Toluene-d8	46.9		67 - 123		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.4		33 - 141		77%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	175036	4.41				
540-36-3	1,4-Difluorobenzene	262385	5.15				
3114-55-4	Chlorobenzene-d5	243335	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	84089	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-13	SDG No.:	E3133
Lab Sample ID:	E3133-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5.2
Sample Wt/Vol:	5.71 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038737.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.46	U	0.46	0.46	4.6	ug/Kg
75-35-4	1,1-Dichloroethene	0.46	U	0.46	0.46	4.6	ug/Kg
67-64-1	Acetone	2.3	U	2.3	2.3	23.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.46	U	0.46	0.46	4.6	ug/Kg
75-09-2	Methylene Chloride	0.46	U	0.46	0.46	4.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.46	U	0.46	0.46	4.6	ug/Kg
75-34-3	1,1-Dichloroethane	0.46	U	0.46	0.46	4.6	ug/Kg
78-93-3	2-Butanone	6.9	U	2.9	6.9	23.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.46	U	0.46	0.46	4.6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.46	U	0.46	0.46	4.6	ug/Kg
67-66-3	Chloroform	0.46	U	0.46	0.46	4.6	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.46	U	0.46	0.46	4.6	ug/Kg
71-43-2	Benzene	0.46	U	0.35	0.46	4.6	ug/Kg
107-06-2	1,2-Dichloroethane	0.46	U	0.46	0.46	4.6	ug/Kg
79-01-6	Trichloroethene	0.46	U	0.46	0.46	4.6	ug/Kg
108-88-3	Toluene	0.46	U	0.46	0.46	4.6	ug/Kg
127-18-4	Tetrachloroethene	0.46	U	0.46	0.46	4.6	ug/Kg
108-90-7	Chlorobenzene	0.46	U	0.46	0.46	4.6	ug/Kg
100-41-4	Ethyl Benzene	0.46	U	0.46	0.46	4.6	ug/Kg
1330-20-7	Total Xylenes	1.38	U	1.13	1.38	13.8	ug/Kg
103-65-1	n-propylbenzene	0.46	U	0.33	0.46	4.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.42	0.46	4.6	ug/Kg
98-06-6	tert-Butylbenzene	0.46	U	0.46	0.46	4.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.46	U	0.46	0.46	4.6	ug/Kg
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.46	4.6	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.46	U	0.34	0.46	4.6	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.46	U	0.38	0.46	4.6	ug/Kg
104-51-8	n-Butylbenzene	0.46	U	0.42	0.46	4.6	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.46	U	0.46	0.46	4.6	ug/Kg
123-91-1	1,4-Dioxane	92.4	U	92.4	92.4	92.4	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-13	SDG No.:	E3133
Lab Sample ID:	E3133-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	5.2
Sample Wt/Vol:	5.71 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038737.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	51.7		56 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	46.3		57 - 135		93%	SPK: 50
2037-26-5	Toluene-d8	48.9		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		33 - 141		87%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	129967	4.41				
540-36-3	1,4-Difluorobenzene	204750	5.15				
3114-55-4	Chlorobenzene-d5	201849	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	70374	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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N = Presumptive Evidence of a Compound
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-14	SDG No.:	E3133
Lab Sample ID:	E3133-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.3
Sample Wt/Vol:	4.91 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038738.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-64-1	Acetone	2.7	U	2.7	2.7	27.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.54	U	0.54	0.54	5.4	ug/Kg
75-09-2	Methylene Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
75-34-3	1,1-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
78-93-3	2-Butanone	8.2	U	3.4	8.2	27.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-66-3	Chloroform	0.54	U	0.54	0.54	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
71-43-2	Benzene	0.54	U	0.41	0.54	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
79-01-6	Trichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-88-3	Toluene	0.54	U	0.54	0.54	5.4	ug/Kg
127-18-4	Tetrachloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-90-7	Chlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
100-41-4	Ethyl Benzene	0.54	U	0.54	0.54	5.4	ug/Kg
1330-20-7	Total Xylenes	1.64	U	1.32	1.64	16.3	ug/Kg
103-65-1	n-propylbenzene	0.54	U	0.39	0.54	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.54	U	0.49	0.54	5.4	ug/Kg
98-06-6	tert-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
135-98-8	sec-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.54	U	0.4	0.54	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.54	U	0.45	0.54	5.4	ug/Kg
104-51-8	n-Butylbenzene	0.54	U	0.5	0.54	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
123-91-1	1,4-Dioxane	110	U J	110	110	110	ug/Kg
SURROGATES							

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-14	SDG No.:	E3133
Lab Sample ID:	E3133-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.3
Sample Wt/Vol:	4.91 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038738.D	1		08/01/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	45		56 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	42.9		57 - 135		86%	SPK: 50
2037-26-5	Toluene-d8	43.4		67 - 123		87%	SPK: 50
460-00-4	4-Bromofluorobenzene	36.7		33 - 141		73%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	164031	4.41				
540-36-3	1,4-Difluorobenzene	254861	5.15				
3114-55-4	Chlorobenzene-d5	226006	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	81859	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-14X	SDG No.:	E3133
Lab Sample ID:	E3133-08	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.6
Sample Wt/Vol:	4.8 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038739.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.56	U	0.56	0.56	5.6	ug/Kg
75-35-4	1,1-Dichloroethene	0.56	U	0.56	0.56	5.6	ug/Kg
67-64-1	Acetone	110	J	2.8	2.8	27.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.56	U	0.56	0.56	5.6	ug/Kg
75-09-2	Methylene Chloride	0.56	U	0.56	0.56	5.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.56	U	0.56	0.56	5.6	ug/Kg
75-34-3	1,1-Dichloroethane	0.56	U	0.56	0.56	5.6	ug/Kg
78-93-3	2-Butanone	8.4	U	3.5	8.4	27.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.56	U	0.56	0.56	5.6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.56	U	0.56	0.56	5.6	ug/Kg
67-66-3	Chloroform	0.56	U	0.56	0.56	5.6	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.56	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	0.56	U	0.42	0.56	5.6	ug/Kg
107-06-2	1,2-Dichloroethane	0.56	U	0.56	0.56	5.6	ug/Kg
79-01-6	Trichloroethene	0.56	U	0.56	0.56	5.6	ug/Kg
108-88-3	Toluene	0.56	U	0.56	0.56	5.6	ug/Kg
127-18-4	Tetrachloroethene	0.56	U	0.56	0.56	5.6	ug/Kg
108-90-7	Chlorobenzene	0.56	U	0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	0.56	U	0.56	0.56	5.6	ug/Kg
1330-20-7	Total Xylenes	1.66	U	1.36	1.66	16.8	ug/Kg
103-65-1	n-propylbenzene	0.56	U	0.4	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.56	U	0.5	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	0.56	U	0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.56	U	0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	0.56	U	0.56	0.56	5.6	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.56	U	0.41	0.56	5.6	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.56	U	0.46	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	0.56	U	0.51	0.56	5.6	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.56	U	0.56	0.56	5.6	ug/Kg
123-91-1	1,4-Dioxane	110	U J	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-D-14X	SDG No.:	E3133
Lab Sample ID:	E3133-08	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	6.6
Sample Wt/Vol:	4.8 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038739.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	51.3		56 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	45.7		57 - 135		91%	SPK: 50
2037-26-5	Toluene-d8	44.6		67 - 123		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	39		33 - 141		78%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	133655	4.41				
540-36-3	1,4-Difluorobenzene	214542	5.15				
3114-55-4	Chlorobenzene-d5	196999	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	71198	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TB-002	SDG No.:	E3133
Lab Sample ID:	E3133-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH052224.D	1		08/01/13	VH073113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	5	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	5	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	25	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	5	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	5	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	25	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	5	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	0.75	U	0.4	0.75	5	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	5	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.48	0.75	5	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	5	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	5	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	5	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	5	ug/L
1330-20-7	Total Xylenes	1.5	U	1.38	1.5	15	ug/L
103-65-1	n-propylbenzene	0.5	U	0.45	0.5	5	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.46	0.5	5	ug/L
98-06-6	tert-Butylbenzene	0.5	U	0.44	0.5	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.38	0.5	5	ug/L
135-98-8	sec-Butylbenzene	0.5	U	0.46	0.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	5	ug/L
104-51-8	n-Butylbenzene	0.5	U	0.41	0.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TB-002	SDG No.:	E3133
Lab Sample ID:	E3133-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH052224.D	1		08/01/13	VH073113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	50.3		61 - 141		101%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	50.7		65 - 126		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	69626	4.89				
540-36-3	1,4-Difluorobenzene	95753	5.62				
3114-55-4	Chlorobenzene-d5	87532	9.76				
3855-82-1	1,4-Dichlorobenzene-d4	40735	12.51				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-02	SDG No.:	E3133
Lab Sample ID:	E3133-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10.7
Sample Wt/Vol:	5.17 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038740.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-64-1	Acetone	2.7	U	2.7	2.7	27.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.54	U	0.54	0.54	5.4	ug/Kg
75-09-2	Methylene Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
75-34-3	1,1-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
78-93-3	2-Butanone	8.1	U	3.4	8.1	27.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-66-3	Chloroform	0.54	U	0.54	0.54	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
71-43-2	Benzene	0.54	U	0.41	0.54	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
79-01-6	Trichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-88-3	Toluene	0.54	U	0.54	0.54	5.4	ug/Kg
127-18-4	Tetrachloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-90-7	Chlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
100-41-4	Ethyl Benzene	0.54	U	0.54	0.54	5.4	ug/Kg
1330-20-7	Total Xylenes	1.64	U	1.32	1.64	16.2	ug/Kg
103-65-1	n-propylbenzene	0.54	U	0.39	0.54	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.54	U	0.49	0.54	5.4	ug/Kg
98-06-6	tert-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
135-98-8	sec-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.54	U	0.4	0.54	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.54	U	0.44	0.54	5.4	ug/Kg
104-51-8	n-Butylbenzene	0.54	U	0.5	0.54	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-02	SDG No.:	E3133
Lab Sample ID:	E3133-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10.7
Sample Wt/Vol:	5.17 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038740.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.6		56 - 120		89%	SPK: 50
1868-53-7	Dibromofluoromethane	45.1		57 - 135		90%	SPK: 50
2037-26-5	Toluene-d8	42.9		67 - 123		86%	SPK: 50
460-00-4	4-Bromofluorobenzene	33.9		33 - 141		68%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	145100	4.41				
540-36-3	1,4-Difluorobenzene	223428	5.15				
3114-55-4	Chlorobenzene-d5	199173	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	64696	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-03	SDG No.:	E3133
Lab Sample ID:	E3133-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	11.8
Sample Wt/Vol:	5.42 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038751.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	U	2.6	2.6	26.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.8	U	3.3	7.8	26.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.4	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.27	1.52	15.7	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.38	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.39	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.43	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.48	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U UJ	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-03	SDG No.:	E3133
Lab Sample ID:	E3133-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	11.8
Sample Wt/Vol:	5.42 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038751.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	43.6		56 - 120		87%	SPK: 50
1868-53-7	Dibromofluoromethane	44.1		57 - 135		88%	SPK: 50
2037-26-5	Toluene-d8	46.2		67 - 123		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	36.7		33 - 141		73%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	161211	4.394				
540-36-3	1,4-Difluorobenzene	246672	5.143				
3114-55-4	Chlorobenzene-d5	210192	9.339				
3855-82-1	1,4-Dichlorobenzene-d4	76322	12.255				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-04	SDG No.:	E3133
Lab Sample ID:	E3133-16	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10.1
Sample Wt/Vol:	5.79 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038742.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
75-35-4	1,1-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-64-1	Acetone	2.4	U	2.4	2.4	24	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.48	U	0.48	0.48	4.8	ug/Kg
75-09-2	Methylene Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
75-34-3	1,1-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
78-93-3	2-Butanone	7.2	U	3	7.2	24	ug/Kg
56-23-5	Carbon Tetrachloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-66-3	Chloroform	0.48	U	0.48	0.48	4.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
71-43-2	Benzene	0.48	U	0.37	0.48	4.8	ug/Kg
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
79-01-6	Trichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-88-3	Toluene	0.48	U	0.48	0.48	4.8	ug/Kg
127-18-4	Tetrachloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-90-7	Chlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
100-41-4	Ethyl Benzene	0.48	U	0.48	0.48	4.8	ug/Kg
1330-20-7	Total Xylenes	1.44	U	1.17	1.44	14.4	ug/Kg
103-65-1	n-propylbenzene	0.48	U	0.35	0.48	4.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.48	U	0.43	0.48	4.8	ug/Kg
98-06-6	tert-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
135-98-8	sec-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.48	U	0.36	0.48	4.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.48	U	0.39	0.48	4.8	ug/Kg
104-51-8	n-Butylbenzene	0.48	U	0.44	0.48	4.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
123-91-1	1,4-Dioxane	96.1	U	96.1	96.1	96.1	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-04	SDG No.:	E3133
Lab Sample ID:	E3133-16	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10.1
Sample Wt/Vol:	5.79 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038742.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.4		56 - 120		89%	SPK: 50
1868-53-7	Dibromofluoromethane	46.1		57 - 135		92%	SPK: 50
2037-26-5	Toluene-d8	47.4		67 - 123		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.9		33 - 141		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	129878	4.41				
540-36-3	1,4-Difluorobenzene	202188	5.16				
3114-55-4	Chlorobenzene-d5	209395	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	80876	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-05	SDG No.:	E3133
Lab Sample ID:	E3133-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10
Sample Wt/Vol:	5.3 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038743.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	U	2.6	2.6	26.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.9	U	3.3	7.9	26.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.4	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.27	1.52	15.7	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.38	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.39	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.43	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.48	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-05	SDG No.:	E3133
Lab Sample ID:	E3133-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	10
Sample Wt/Vol:	5.3 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038743.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	51.3		56 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	44.1		57 - 135		88%	SPK: 50
2037-26-5	Toluene-d8	44.6		67 - 123		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.5		33 - 141		79%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	145260	4.41				
540-36-3	1,4-Difluorobenzene	235711	5.16				
3114-55-4	Chlorobenzene-d5	225065	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	82461	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-06	SDG No.:	E3133
Lab Sample ID:	E3133-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	11.2
Sample Wt/Vol:	5.2 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038744.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-64-1	Acetone	2.7	U	2.7	2.7	27.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.54	U	0.54	0.54	5.4	ug/Kg
75-09-2	Methylene Chloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
75-34-3	1,1-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
78-93-3	2-Butanone	8.1	U	3.4	8.1	27.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.54	U	0.54	0.54	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
67-66-3	Chloroform	0.54	U	0.54	0.54	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
71-43-2	Benzene	0.54	U	0.41	0.54	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	0.54	U	0.54	0.54	5.4	ug/Kg
79-01-6	Trichloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-88-3	Toluene	0.54	U	0.54	0.54	5.4	ug/Kg
127-18-4	Tetrachloroethene	0.54	U	0.54	0.54	5.4	ug/Kg
108-90-7	Chlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
100-41-4	Ethyl Benzene	0.54	U	0.54	0.54	5.4	ug/Kg
1330-20-7	Total Xylenes	1.64	U	1.32	1.64	16.2	ug/Kg
103-65-1	n-propylbenzene	0.54	U	0.39	0.54	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.54	U	0.49	0.54	5.4	ug/Kg
98-06-6	tert-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
135-98-8	sec-Butylbenzene	0.54	U	0.54	0.54	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.54	U	0.4	0.54	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.54	U	0.44	0.54	5.4	ug/Kg
104-51-8	n-Butylbenzene	0.54	U	0.5	0.54	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.54	U	0.54	0.54	5.4	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-06	SDG No.:	E3133
Lab Sample ID:	E3133-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	11.2
Sample Wt/Vol:	5.2 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038744.D	1		08/02/13	VF080113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	42.1		56 - 120		84%	SPK: 50
1868-53-7	Dibromofluoromethane	43.6		57 - 135		87%	SPK: 50
2037-26-5	Toluene-d8	46.1		67 - 123		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	34.7		33 - 141		69%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	150564	4.41				
540-36-3	1,4-Difluorobenzene	228618	5.16				
3114-55-4	Chlorobenzene-d5	194554	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	63437	12.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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E = Value Exceeds Calibration Range
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B = Analyte Found in Associated Method Blank
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CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-07	SDG No.:	E3133
Lab Sample ID:	E3133-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13.7
Sample Wt/Vol:	5.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID: 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038757.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.49	U	0.49	0.49	4.9	ug/Kg
75-35-4	1,1-Dichloroethene	0.49	U	0.49	0.49	4.9	ug/Kg
67-64-1	Acetone	2.4	U	2.4	2.4	24.3	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.49	U	0.49	0.49	4.9	ug/Kg
75-09-2	Methylene Chloride	0.49	U	0.49	0.49	4.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.49	U	0.49	0.49	4.9	ug/Kg
75-34-3	1,1-Dichloroethane	0.49	U	0.49	0.49	4.9	ug/Kg
78-93-3	2-Butanone	7.3	U	3	7.3	24.3	ug/Kg
56-23-5	Carbon Tetrachloride	0.49	U	0.49	0.49	4.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.49	U	0.49	0.49	4.9	ug/Kg
67-66-3	Chloroform	0.49	U	0.49	0.49	4.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.49	U	0.49	0.49	4.9	ug/Kg
71-43-2	Benzene	0.49	U	0.37	0.49	4.9	ug/Kg
107-06-2	1,2-Dichloroethane	0.49	U	0.49	0.49	4.9	ug/Kg
79-01-6	Trichloroethene	0.49	U	0.49	0.49	4.9	ug/Kg
108-88-3	Toluene	0.49	U	0.49	0.49	4.9	ug/Kg
127-18-4	Tetrachloroethene	0.49	U	0.49	0.49	4.9	ug/Kg
108-90-7	Chlorobenzene	0.49	U	0.49	0.49	4.9	ug/Kg
100-41-4	Ethyl Benzene	0.49	U	0.49	0.49	4.9	ug/Kg
1330-20-7	Total Xylenes	1.46	U	1.19	1.46	14.6	ug/Kg
103-65-1	n-propylbenzene	0.49	U	0.35	0.49	4.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.49	U	0.44	0.49	4.9	ug/Kg
98-06-6	tert-Butylbenzene	0.49	U	0.49	0.49	4.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.49	U	0.49	0.49	4.9	ug/Kg
135-98-8	sec-Butylbenzene	0.49	U	0.49	0.49	4.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.49	U	0.36	0.49	4.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.49	U	0.4	0.49	4.9	ug/Kg
104-51-8	n-Butylbenzene	0.49	U	0.45	0.49	4.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.49	U	0.49	0.49	4.9	ug/Kg
123-91-1	1,4-Dioxane	97.2	U J	97.2	97.2	97.2	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-07	SDG No.:	E3133
Lab Sample ID:	E3133-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13.7
Sample Wt/Vol:	5.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038757.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	52.4		56 - 120		105%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	46.4		67 - 123		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.3		33 - 141		77%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	150149	4.4				
540-36-3	1,4-Difluorobenzene	233622	5.15				
3114-55-4	Chlorobenzene-d5	213012	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	69151	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-08	SDG No.:	E3133
Lab Sample ID:	E3133-20	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9.8
Sample Wt/Vol:	5.21 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038753.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.53	U	0.53	0.53	5.3	ug/Kg
75-35-4	1,1-Dichloroethene	0.53	U	0.53	0.53	5.3	ug/Kg
67-64-1	Acetone	2.7	U	2.7	2.7	26.6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.53	U	0.53	0.53	5.3	ug/Kg
75-09-2	Methylene Chloride	0.53	U	0.53	0.53	5.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.53	U	0.53	0.53	5.3	ug/Kg
75-34-3	1,1-Dichloroethane	0.53	U	0.53	0.53	5.3	ug/Kg
78-93-3	2-Butanone	8	U	3.3	8	26.6	ug/Kg
56-23-5	Carbon Tetrachloride	0.53	U	0.53	0.53	5.3	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.53	U	0.53	0.53	5.3	ug/Kg
67-66-3	Chloroform	0.53	U	0.53	0.53	5.3	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.53	U	0.53	0.53	5.3	ug/Kg
71-43-2	Benzene	0.53	U	0.4	0.53	5.3	ug/Kg
107-06-2	1,2-Dichloroethane	0.53	U	0.53	0.53	5.3	ug/Kg
79-01-6	Trichloroethene	0.53	U	0.53	0.53	5.3	ug/Kg
108-88-3	Toluene	0.53	U	0.53	0.53	5.3	ug/Kg
127-18-4	Tetrachloroethene	0.53	U	0.53	0.53	5.3	ug/Kg
108-90-7	Chlorobenzene	0.53	U	0.53	0.53	5.3	ug/Kg
100-41-4	Ethyl Benzene	0.53	U	0.53	0.53	5.3	ug/Kg
1330-20-7	Total Xylenes	1.63	U	1.3	1.63	15.9	ug/Kg
103-65-1	n-propylbenzene	0.53	U	0.38	0.53	5.3	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.53	U	0.48	0.53	5.3	ug/Kg
98-06-6	tert-Butylbenzene	0.53	U	0.53	0.53	5.3	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.53	U	0.53	0.53	5.3	ug/Kg
135-98-8	sec-Butylbenzene	0.53	U	0.53	0.53	5.3	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.53	U	0.39	0.53	5.3	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.53	U	0.44	0.53	5.3	ug/Kg
104-51-8	n-Butylbenzene	0.53	U	0.49	0.53	5.3	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.53	U	0.53	0.53	5.3	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-08	SDG No.:	E3133
Lab Sample ID:	E3133-20	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9.8
Sample Wt/Vol:	5.21 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038753.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	49.6		56 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		57 - 135		94%	SPK: 50
2037-26-5	Toluene-d8	44		67 - 123		88%	SPK: 50
460-00-4	4-Bromofluorobenzene	32.8		33 - 141		66%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	149493	4.4				
540-36-3	1,4-Difluorobenzene	235343	5.15				
3114-55-4	Chlorobenzene-d5	199560	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	62261	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-08X	SDG No.:	E3133
Lab Sample ID:	E3133-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8.1
Sample Wt/Vol:	5.25 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID: 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038754.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	U	2.6	2.6	25.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.8	U	3.2	7.8	25.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.39	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.27	1.52	15.6	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.37	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.38	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.42	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.48	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U UJ	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-D-08X	SDG No.:	E3133
Lab Sample ID:	E3133-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8.1
Sample Wt/Vol:	5.25 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038754.D	1		08/02/13	VF080213

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	55.6		56 - 120		111%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		57 - 135		99%	SPK: 50
2037-26-5	Toluene-d8	47.4		67 - 123		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.3		33 - 141		79%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	130853	4.4				
540-36-3	1,4-Difluorobenzene	206612	5.14				
3114-55-4	Chlorobenzene-d5	202329	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	64515	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-D-15	SDG No.:	E3133
Lab Sample ID:	E3133-24	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.8
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038814.D	1		08/07/13	VF080613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
75-35-4	1,1-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-64-1	Acetone	2.6	U	2.6	2.6	26.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.52	U	0.52	0.52	5.2	ug/Kg
75-09-2	Methylene Chloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
75-34-3	1,1-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
78-93-3	2-Butanone	7.8	U	3.2	7.8	26.1	ug/Kg
56-23-5	Carbon Tetrachloride	0.52	U	0.52	0.52	5.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
67-66-3	Chloroform	0.52	U	0.52	0.52	5.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
71-43-2	Benzene	0.52	U	0.4	0.52	5.2	ug/Kg
107-06-2	1,2-Dichloroethane	0.52	U	0.52	0.52	5.2	ug/Kg
79-01-6	Trichloroethene	0.52	U	0.52	0.52	5.2	ug/Kg
108-88-3	Toluene	0.52	U	0.52	0.52	5.2	ug/Kg
127-18-4	Tetrachloroethene	1.2	J	0.52	0.52	5.2	ug/Kg
108-90-7	Chlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
100-41-4	Ethyl Benzene	0.52	U	0.52	0.52	5.2	ug/Kg
1330-20-7	Total Xylenes	1.52	U	1.27	1.52	15.6	ug/Kg
103-65-1	n-propylbenzene	0.52	U	0.38	0.52	5.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.52	U	0.47	0.52	5.2	ug/Kg
98-06-6	tert-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
135-98-8	sec-Butylbenzene	0.52	U	0.52	0.52	5.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.52	U	0.39	0.52	5.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.52	U	0.43	0.52	5.2	ug/Kg
104-51-8	n-Butylbenzene	0.52	U	0.48	0.52	5.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.52	U	0.52	0.52	5.2	ug/Kg
123-91-1	1,4-Dioxane	100	U	100	100	100	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-D-15	SDG No.:	E3133
Lab Sample ID:	E3133-24	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	4.8
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID: 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038814.D	1		08/07/13	VF080613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	50.1		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	45.5		57 - 135		91%	SPK: 50
2037-26-5	Toluene-d8	43.7		67 - 123		87%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.5		33 - 141		75%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	153391	4.39				
540-36-3	1,4-Difluorobenzene	239372	5.13				
3114-55-4	Chlorobenzene-d5	212355	9.33				
3855-82-1	1,4-Dichlorobenzene-d4	72413	12.24				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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E = Value Exceeds Calibration Range
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D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	TS-D-09	SDG No.:	E3133
Lab Sample ID:	E3133-30	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9.8
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038834.D	1		08/07/13	VF080713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.55	U	0.55	0.55	5.5	ug/Kg
75-35-4	1,1-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
67-64-1	Acetone	2.8	U	2.8	2.8	27.6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.55	U	0.55	0.55	5.5	ug/Kg
75-09-2	Methylene Chloride	7.1	J	0.55	0.55	5.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
75-34-3	1,1-Dichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
78-93-3	2-Butanone	8.3	U	3.4	8.3	27.6	ug/Kg
56-23-5	Carbon Tetrachloride	0.55	U	0.55	0.55	5.5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
67-66-3	Chloroform	0.55	U	0.55	0.55	5.5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
71-43-2	Benzene	0.55	U	0.42	0.55	5.5	ug/Kg
107-06-2	1,2-Dichloroethane	0.55	U	0.55	0.55	5.5	ug/Kg
79-01-6	Trichloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
108-88-3	Toluene	0.55	U	0.55	0.55	5.5	ug/Kg
127-18-4	Tetrachloroethene	0.55	U	0.55	0.55	5.5	ug/Kg
108-90-7	Chlorobenzene	0.55	U	0.55	0.55	5.5	ug/Kg
100-41-4	Ethyl Benzene	0.55	U	0.55	0.55	5.5	ug/Kg
1330-20-7	Total Xylenes	1.65	U	1.35	1.65	16.5	ug/Kg
103-65-1	n-propylbenzene	0.55	U	0.4	0.55	5.5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.55	U	0.5	0.55	5.5	ug/Kg
98-06-6	tert-Butylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
135-98-8	sec-Butylbenzene	0.55	U	0.55	0.55	5.5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.55	U	0.41	0.55	5.5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.55	U	0.45	0.55	5.5	ug/Kg
104-51-8	n-Butylbenzene	0.55	U	0.51	0.55	5.5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.55	U	0.55	0.55	5.5	ug/Kg
123-91-1	1,4-Dioxane	110	U	110	110	110	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	TS-D-09	SDG No.:	E3133
Lab Sample ID:	E3133-30	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9.8
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF038834.D	1		08/07/13	VF080713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	58.4		56 - 120		117%	SPK: 50
1868-53-7	Dibromofluoromethane	45.3		57 - 135		91%	SPK: 50
2037-26-5	Toluene-d8	46.5		67 - 123		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.8		33 - 141		76%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	115197	4.4				
540-36-3	1,4-Difluorobenzene	186508	5.14				
3114-55-4	Chlorobenzene-d5	173465	9.33				
3855-82-1	1,4-Dichlorobenzene-d4	59528	12.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	TB-003	SDG No.:	E3133
Lab Sample ID:	E3133-33	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN007657.D	1		08/06/13	VN080613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	5	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	5	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	25	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	5	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	5	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	25	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	5	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	0.75	U	0.4	0.75	5	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	5	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.48	0.75	5	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	5	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	5	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	5	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	5	ug/L
1330-20-7	Total Xylenes	1.5	U	1.38	1.5	15	ug/L
103-65-1	n-propylbenzene	0.5	U	0.45	0.5	5	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.46	0.5	5	ug/L
98-06-6	tert-Butylbenzene	0.5	U	0.44	0.5	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.38	0.5	5	ug/L
135-98-8	sec-Butylbenzene	0.5	U	0.46	0.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	5	ug/L
104-51-8	n-Butylbenzene	0.5	U	0.41	0.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	TB-003	SDG No.:	E3133
Lab Sample ID:	E3133-33	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN007657.D	1		08/06/13	VN080613

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	40.2		61 - 141		80%	SPK: 50
1868-53-7	Dibromofluoromethane	43.9		69 - 133		88%	SPK: 50
2037-26-5	Toluene-d8	46.3		65 - 126		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.3		58 - 135		83%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	366336	7.87				
540-36-3	1,4-Difluorobenzene	519216	8.78				
3114-55-4	Chlorobenzene-d5	456778	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	215246	13.56				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3133-01	CS-D-08	1,2-Dichloroethane-d4	50	46.32	93		56	120
		Dibromofluoromethane	50	44.11	88		57	135
		Toluene-d8	50	46.39	93		67	123
		4-Bromofluorobenzene	50	40.03	80		33	141
E3133-02	CS-D-09	1,2-Dichloroethane-d4	50	44.75	89		56	120
		Dibromofluoromethane	50	43.5	87		57	135
		Toluene-d8	50	43.45	87		67	123
		4-Bromofluorobenzene	50	36.96	74		33	141
E3133-03	CS-D-10	1,2-Dichloroethane-d4	50	45.36	91		56	120
		Dibromofluoromethane	50	42.22	84		57	135
		Toluene-d8	50	45.24	90		67	123
		4-Bromofluorobenzene	50	38.05	76		33	141
E3133-04	CS-D-11	1,2-Dichloroethane-d4	50	42.57	85		56	120
		Dibromofluoromethane	50	43.03	86		57	135
		Toluene-d8	50	44.36	89		67	123
		4-Bromofluorobenzene	50	37.75	75		33	141
E3133-05	CS-D-12	1,2-Dichloroethane-d4	50	45.46	91		56	120
		Dibromofluoromethane	50	45.02	90		57	135
		Toluene-d8	50	46.93	94		67	123
		4-Bromofluorobenzene	50	38.41	77		33	141
E3133-06	CS-D-13	1,2-Dichloroethane-d4	50	51.7	103		56	120
		Dibromofluoromethane	50	46.26	93		57	135
		Toluene-d8	50	48.87	98		67	123
		4-Bromofluorobenzene	50	43.54	87		33	141
E3133-07	CS-D-14	1,2-Dichloroethane-d4	50	44.95	90		56	120
		Dibromofluoromethane	50	42.91	86		57	135
		Toluene-d8	50	43.43	87		67	123
		4-Bromofluorobenzene	50	36.71	73		33	141
E3133-08	CS-D-14X	1,2-Dichloroethane-d4	50	51.3	103		56	120
		Dibromofluoromethane	50	45.66	91		57	135
		Toluene-d8	50	44.6	89		67	123
		4-Bromofluorobenzene	50	38.96	78		33	141
E3133-09	TB-002	1,2-Dichloroethane-d4	50	50.331	101		61	141
		Dibromofluoromethane	50	47.196	94		69	133
		Toluene-d8	50	50.708	101		65	126
		4-Bromofluorobenzene	50	48.175	96		58	135
E3133-14	TS-D-02	1,2-Dichloroethane-d4	50	44.62	89		56	120
		Dibromofluoromethane	50	45.1	90		57	135
		Toluene-d8	50	42.91	86		67	123
		4-Bromofluorobenzene	50	33.87	68		33	141
E3133-15	TS-D-03	1,2-Dichloroethane-d4	50	43.63	87		56	120
		Dibromofluoromethane	50	44.1	88		57	135
		Toluene-d8	50	46.17	92		67	123
		4-Bromofluorobenzene	50	36.66	73		33	141
E3133-16	TS-D-04	1,2-Dichloroethane-d4	50	44.43	89		56	120
		Dibromofluoromethane	50	46.05	92		57	135
		Toluene-d8	50	47.44	95		67	123
		4-Bromofluorobenzene	50	45.86	92		33	141
E3133-17	TS-D-05	1,2-Dichloroethane-d4	50	51.26	103		56	120
		Dibromofluoromethane	50	44.09	88		57	135
		Toluene-d8	50	44.56	89		67	123
		4-Bromofluorobenzene	50	39.45	79		33	141

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3133-18	TS-D-06	1,2-Dichloroethane-d4	50	42.06	84		56	120
		Dibromofluoromethane	50	43.58	87		57	135
		Toluene-d8	50	46.1	92		67	123
		4-Bromofluorobenzene	50	34.74	69		33	141
E3133-19	TS-D-07	1,2-Dichloroethane-d4	50	52.35	105		56	120
		Dibromofluoromethane	50	47.42	95		57	135
		Toluene-d8	50	46.43	93		67	123
		4-Bromofluorobenzene	50	38.26	77		33	141
E3133-20	TS-D-08	1,2-Dichloroethane-d4	50	49.61	99		56	120
		Dibromofluoromethane	50	47.09	94		57	135
		Toluene-d8	50	43.96	88		67	123
		4-Bromofluorobenzene	50	32.82	66		33	141
E3133-21	TS-D-08X	1,2-Dichloroethane-d4	50	55.63	111		56	120
		Dibromofluoromethane	50	49.39	99		57	135
		Toluene-d8	50	47.38	95		67	123
		4-Bromofluorobenzene	50	39.3	79		33	141
E3133-24	CS-D-15	1,2-Dichloroethane-d4	50	50.133	100		56	120
		Dibromofluoromethane	50	45.499	91		57	135
		Toluene-d8	50	43.65	87		67	123
		4-Bromofluorobenzene	50	37.472	75		33	141
E3133-25MS	CS-D-15MS	1,2-Dichloroethane-d4	50	57.68	115		56	120
		Dibromofluoromethane	50	52.77	106		57	135
		Toluene-d8	50	53.94	108		67	123
		4-Bromofluorobenzene	50	47.83	96		33	141
E3133-26MSD	CS-D-15MSD	1,2-Dichloroethane-d4	50	65	130	*	56	120
		Dibromofluoromethane	50	58.4	117		57	135
		Toluene-d8	50	57.89	116		67	123
		4-Bromofluorobenzene	50	56.14	112		33	141
E3133-30	TS-D-09	1,2-Dichloroethane-d4	50	58.375	117		56	120
		Dibromofluoromethane	50	45.275	91		57	135
		Toluene-d8	50	46.535	93		67	123
		4-Bromofluorobenzene	50	37.764	76		33	141
E3133-31MS	TS-D-09MS	1,2-Dichloroethane-d4	50	55.19	110		56	120
		Dibromofluoromethane	50	48.71	97		57	135
		Toluene-d8	50	47.63	95		67	123
		4-Bromofluorobenzene	50	44.39	89		33	141
E3133-32MSD	TS-D-09MSD	1,2-Dichloroethane-d4	50	49.25	99		56	120
		Dibromofluoromethane	50	47.31	95		57	135
		Toluene-d8	50	48.36	97		67	123
		4-Bromofluorobenzene	50	43.14	86		33	141
E3133-33	TB-003	1,2-Dichloroethane-d4	50	40.15	80		61	141
		Dibromofluoromethane	50	43.9	88		69	133
		Toluene-d8	50	46.25	93		65	126
		4-Bromofluorobenzene	50	41.28	83		58	135
VF0801SBL01	VF0801SBL01	1,2-Dichloroethane-d4	50	48.74	97		55	158
		Dibromofluoromethane	50	49.69	99		53	156
		Toluene-d8	50	52.71	105		85	115
		4-Bromofluorobenzene	50	47.69	95		85	120
VF0801SBS01	VF0801SBS01	1,2-Dichloroethane-d4	50	51.39	103		55	158
		Dibromofluoromethane	50	49.38	99		53	156
		Toluene-d8	50	49.44	99		85	115
		4-Bromofluorobenzene	50	49.11	98		85	120

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VF0802SBL01	VF0802SBL01	1,2-Dichloroethane-d4	50	48.76	98		56	120
		Dibromofluoromethane	50	49.13	98		57	135
		Toluene-d8	50	49.1	98		67	123
		4-Bromofluorobenzene	50	43.24	86		33	141
VF0802SBS01	VF0802SBS01	1,2-Dichloroethane-d4	50	48.51	97		56	120
		Dibromofluoromethane	50	51.09	102		57	135
		Toluene-d8	50	51.62	103		67	123
		4-Bromofluorobenzene	50	48.52	97		33	141
VF0806SBL01	VF0806SBL01	1,2-Dichloroethane-d4	50	52.789	106		56	120
		Dibromofluoromethane	50	50.673	101		57	135
		Toluene-d8	50	53.351	107		67	123
		4-Bromofluorobenzene	50	53.433	107		33	141
VF0806SBS01	VF0806SBS01	1,2-Dichloroethane-d4	50	56.2	112		56	120
		Dibromofluoromethane	50	51.55	103		57	135
		Toluene-d8	50	54.55	109		67	123
		4-Bromofluorobenzene	50	53.86	108		33	141
VF0807SBL01	VF0807SBL01	1,2-Dichloroethane-d4	50	53.41	107		56	120
		Dibromofluoromethane	50	47.59	95		57	135
		Toluene-d8	50	50.97	102		67	123
		4-Bromofluorobenzene	50	44.65	89		33	141
VF0807SBS01	VF0807SBS01	1,2-Dichloroethane-d4	50	58.43	117		56	120
		Dibromofluoromethane	50	51.38	103		57	135
		Toluene-d8	50	52.13	104		67	123
		4-Bromofluorobenzene	50	48.67	97		33	141
VH0731WBL01	VH0731WBL01	1,2-Dichloroethane-d4	50	49.332	99		~~61~~ 76	~~141~~ 114
		Dibromofluoromethane	50	47.355	95		69	133
		Toluene-d8	50	47.241	94		~~65~~ 88	~~126~~ 115
		4-Bromofluorobenzene	50	43.006	86		~~58~~ 86	~~135~~ 115
VH0731WBS01	VH0731WBS01	1,2-Dichloroethane-d4	50	53.032	106		61	141
		Dibromofluoromethane	50	46.635	93		69	133
		Toluene-d8	50	48.524	97		65	126
		4-Bromofluorobenzene	50	50.028	100		58	135
VH0731WBSD0	VH0731WBSD01	1,2-Dichloroethane-d4	50	51.864	104		61	141
		Dibromofluoromethane	50	46.985	94		69	133
		Toluene-d8	50	48.472	97		65	126
		4-Bromofluorobenzene	50	48.209	96		58	135

Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VN0806WBL01	VN0806WBL01	1,2-Dichloroethane-d4	50	40.52	81		70	120
		Dibromofluoromethane	50	44.12	88		85	115
		Toluene-d8	50	46.55	93		85	120
		4-Bromofluorobenzene	50	40.75	81		75	120
VN0806WBS01	VN0806WBS01	1,2-Dichloroethane-d4	50	42.09	84		70	120
		Dibromofluoromethane	50	45.26	91		85	115
		Toluene-d8	50	48.1	96		85	120
		4-Bromofluorobenzene	50	44.93	90		75	120

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3133-25MS	**Client Sample ID :** CS-D-15MS						**Datafile :** VF038818.D				
Vinyl chloride	53.6	0	65.7	ug/Kg	123				56	145	
1,1-Dichloroethene	53.6	0	64.7	ug/Kg	121				59 ~~64~~	~~140~~ 172	
Acetone	270	0	280	ug/Kg	104				41	145	
Methyl tert-butyl Ether	53.6	0	58.8	ug/Kg	110				64	132	
Methylene Chloride	53.6	0	68.5	ug/Kg	128				59	133	
trans-1,2-Dichloroethene	53.6	0	61.8	ug/Kg	115				64	135	
1,1-Dichloroethane	53.6	0	66.1	ug/Kg	123				66	135	
2-Butanone	270	0	270	ug/Kg	100				54	137	
Carbon Tetrachloride	53.6	0	57.3	ug/Kg	107				66	137	
cis-1,2-Dichloroethene	53.6	0	55.5	ug/Kg	104				65	132	
Chloroform	53.6	0	60.4	ug/Kg	113				68	132	
1,1,1-Trichloroethane	53.6	0	62.3	ug/Kg	116				69	138	
Benzene	53.6	0	55.7	ug/Kg	104				66 ~~68~~	~~130~~ 142	
1,2-Dichloroethane	53.6	0	55	ug/Kg	103				68	130	
Trichloroethene	53.6	0	52	ug/Kg	97				62 ~~54~~	~~149~~ 137	
Toluene	53.6	0	54.8	ug/Kg	102				59 ~~65~~	~~133~~ 139	
Tetrachloroethene	53.6	1.2	58.4	ug/Kg	107				37	161	
Chlorobenzene	53.6	0	53.6	ug/Kg	100				60 ~~66~~	~~128~~ 133	
Ethyl Benzene	53.6	0	56.2	ug/Kg	105				65	133	
m/p-Xylenes	110	0	110	ug/Kg	100				62	134	
o-Xylene	53.6	0	55.6	ug/Kg	104				65	133	
N-propylbenzene	53.6	0	60.1	ug/Kg	112				61	136	
1,3,5-Trimethylbenzene	53.6	0	59.3	ug/Kg	111				65	133	
tert-Butylbenzene	53.6	0	58.6	ug/Kg	109				61	139	
1,2,4-Trimethylbenzene	53.6	0	57.2	ug/Kg	107				59	137	
Sec-butylbenzene	53.6	0	58.4	ug/Kg	109				58	138	
1,3-Dichlorobenzene	53.6	0	53.8	ug/Kg	100				60	129	
1,4-Dichlorobenzene	53.6	0	53.5	ug/Kg	100				59	128	
n-Butylbenzene	53.6	0	54.4	ug/Kg	101				45	141	
1,2-Dichlorobenzene	53.6	0	53.7	ug/Kg	100				63	127	
1,4-Dioxane	1100	0	900	ug/Kg	82				50	150	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

DG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3133-26MSD	**Client Sample ID :** CS-D-15MSD						**Datafile :** VF038819.D				
Vinyl chloride	56.7	0	79.2	ug/Kg	140		13		56	145	20
1,1-Dichloroethene	56.7	0	76.6	ug/Kg	135		11		64	140	20
Acetone	280	0	370	ug/Kg	132		24	*	41	145	20
Methyl tert-butyl Ether	56.7	0	76.4	ug/Kg	135	*	20		64	132	20
Methylene Chloride	56.7	0	81.5	ug/Kg	144	*	12		59	133	20
trans-1,2-Dichloroethene	56.7	0	71.1	ug/Kg	125		8		64	135	20
1,1-Dichloroethane	56.7	0	74.9	ug/Kg	132		7		66	135	20
2-Butanone	280	0	350	ug/Kg	125		22	*	54	137	20
Carbon Tetrachloride	56.7	0	66.5	ug/Kg	117		9		66	137	20
cis-1,2-Dichloroethene	56.7	0	63.9	ug/Kg	113		8		65	132	20
Chloroform	56.7	0	69.6	ug/Kg	123		9		68	132	20
1,1,1-Trichloroethane	56.7	0	72.1	ug/Kg	127		9		69	138	20
Benzene	56.7	0	63.7	ug/Kg	112		8		68	130	20
1,2-Dichloroethane	56.7	0	67.4	ug/Kg	119		15		68	130	20
Trichloroethene	56.7	0	59.8	ug/Kg	105		8		54	149	20
Toluene	56.7	0	62.9	ug/Kg	111		8		65	133	20
Tetrachloroethene	56.7	1.2	61.2	ug/Kg	106		1		37	161	20
Chlorobenzene	56.7	0	57.5	ug/Kg	101		1		66	128	20
Ethyl Benzene	56.7	0	59.2	ug/Kg	104		0		65	133	20
m/p-Xylenes	110	0	110	ug/Kg	100		0		62	134	20
o-Xylene	56.7	0	60.3	ug/Kg	106		2		65	133	20
N-propylbenzene	56.7	0	62.2	ug/Kg	110		2		61	136	20
1,3,5-Trimethylbenzene	56.7	0	62.7	ug/Kg	111		0		65	133	20
tert-Butylbenzene	56.7	0	61.3	ug/Kg	108		1		61	139	20
1,2,4-Trimethylbenzene	56.7	0	59.5	ug/Kg	105		2		59	137	20
Sec-butylbenzene	56.7	0	60.6	ug/Kg	107		2		58	138	20
1,3-Dichlorobenzene	56.7	0	58.4	ug/Kg	103		3		60	129	20
1,4-Dichlorobenzene	56.7	0	58.8	ug/Kg	104		4		59	128	20
n-Butylbenzene	56.7	0	57.1	ug/Kg	101		1		45	141	20
1,2-Dichlorobenzene	56.7	0	59.3	ug/Kg	105		4		63	127	20
1,4-Dioxane	1100	0	1300	ug/Kg	118		36	*	50	150	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

DG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3133-31MS	**Client Sample ID :** TS-D-09MS						**Datafile :** VF038841.D				
Vinyl chloride	50.9	0	51.1	ug/Kg	100				56	145	
1,1-Dichloroethene	50.9	0	52	ug/Kg	102				64	140	
Acetone	250	0	220	ug/Kg	88				41	145	
Methyl tert-butyl Ether	50.9	0	50.4	ug/Kg	99				64	132	
Methylene Chloride	50.9	7.1	56.9	ug/Kg	98				59	133	
trans-1,2-Dichloroethene	50.9	0	51.2	ug/Kg	101				64	135	
1,1-Dichloroethane	50.9	0	52.5	ug/Kg	103				66	135	
2-Butanone	250	0	250	ug/Kg	100				54	137	
Carbon Tetrachloride	50.9	0	45.6	ug/Kg	90				66	137	
cis-1,2-Dichloroethene	50.9	0	46.5	ug/Kg	91				65	132	
Chloroform	50.9	0	49.3	ug/Kg	97				68	132	
1,1,1-Trichloroethane	50.9	0	49.1	ug/Kg	96				69	138	
Benzene	50.9	0	46.7	ug/Kg	92				68	130	
1,2-Dichloroethane	50.9	0	49.7	ug/Kg	98				68	130	
Trichloroethene	50.9	0	44.4	ug/Kg	87				54	149	
Toluene	50.9	0	45.2	ug/Kg	89				65	133	
Tetrachloroethene	50.9	0	40.9	ug/Kg	80				37	161	
Chlorobenzene	50.9	0	45.5	ug/Kg	89				66	128	
Ethyl Benzene	50.9	0	46.1	ug/Kg	91				65	133	
m/p-Xylenes	100	0	89.3	ug/Kg	89				62	134	
o-Xylene	50.9	0	46.3	ug/Kg	91				65	133	
N-propylbenzene	50.9	0	48.1	ug/Kg	94				61	136	
1,3,5-Trimethylbenzene	50.9	0	46.9	ug/Kg	92				65	133	
tert-Butylbenzene	50.9	0	46.9	ug/Kg	92				61	139	
1,2,4-Trimethylbenzene	50.9	0	45.3	ug/Kg	89				59	137	
Sec-butylbenzene	50.9	0	46.1	ug/Kg	91				58	138	
1,3-Dichlorobenzene	50.9	0	46.2	ug/Kg	91				60	129	
1,4-Dichlorobenzene	50.9	0	45.4	ug/Kg	89				59	128	
n-Butylbenzene	50.9	0	44	ug/Kg	86				45	141	
1,2-Dichlorobenzene	50.9	0	45	ug/Kg	88				63	127	
1,4-Dioxane	1000	0	960	ug/Kg	96				50	150	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

OG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3133-32MSD	**Client Sample ID :** TS-D-09MSD						**Datafile :** VF038842.D				
Vinyl chloride	50	0	49.9	ug/Kg	100		1		56	145	20
1,1-Dichloroethene	50	0	51.2	ug/Kg	102		0		64	140	20
Acetone	250	0	180	ug/Kg	72		20		41	145	20
Methyl tert-butyl Ether	50	0	45.1	ug/Kg	90		9		64	132	20
Methylene Chloride	50	7.1	51.2	ug/Kg	88		9		59	133	20
trans-1,2-Dichloroethene	50	0	50.5	ug/Kg	101		0		64	135	20
1,1-Dichloroethane	50	0	51.7	ug/Kg	103		0		66	135	20
2-Butanone	250	0	200	ug/Kg	80		22	*	54	137	20
Carbon Tetrachloride	50	0	48.7	ug/Kg	97		8		66	137	20
cis-1,2-Dichloroethene	50	0	47.7	ug/Kg	95		4		65	132	20
Chloroform	50	0	48.5	ug/Kg	97		0		68	132	20
1,1,1-Trichloroethane	50	0	47.7	ug/Kg	95		1		69	138	20
Benzene	50	0	47.9	ug/Kg	96		4		68	130	20
1,2-Dichloroethane	50	0	46.8	ug/Kg	94		4		68	130	20
Trichloroethene	50	0	45.9	ug/Kg	92		5		54	149	20
Toluene	50	0	46.4	ug/Kg	93		4		65	133	20
Tetrachloroethene	50	0	42.9	ug/Kg	86		7		37	161	20
Chlorobenzene	50	0	47.1	ug/Kg	94		5		66	128	20
Ethyl Benzene	50	0	48	ug/Kg	96		6		65	133	20
m/p-Xylenes	100	0	92.4	ug/Kg	92		3		62	134	20
o-Xylene	50	0	45.8	ug/Kg	92		1		65	133	20
N-propylbenzene	50	0	51.2	ug/Kg	102		8		61	136	20
1,3,5-Trimethylbenzene	50	0	50.2	ug/Kg	100		9		65	133	20
tert-Butylbenzene	50	0	50.9	ug/Kg	102		10		61	139	20
1,2,4-Trimethylbenzene	50	0	48.8	ug/Kg	98		9		59	137	20
Sec-butylbenzene	50	0	50.2	ug/Kg	100		10		58	138	20
1,3-Dichlorobenzene	50	0	47.3	ug/Kg	95		4		60	129	20
1,4-Dichlorobenzene	50	0	47.5	ug/Kg	95		6		59	128	20
n-Butylbenzene	50	0	49.5	ug/Kg	99		14		45	141	20
1,2-Dichlorobenzene	50	0	45.6	ug/Kg	91		3		63	127	20
1,4-Dioxane	1000	0	770	ug/Kg	77		22	*	50	150	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VF038723.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VF0801SBS01	Vinyl chloride	20	19.4	ug/Kg	97			60	125	
	1,1-Dichloroethene	20	19.6	ug/Kg	98			65	135	
	Acetone	100	100	ug/Kg	100			20	160	
	Methyl tert-butyl Ether	20	21	ug/Kg	105			70	131	
	Methylene Chloride	20	20.2	ug/Kg	101			55	140	
	trans-1,2-Dichloroethene	20	20.6	ug/Kg	103			65	135	
	1,1-Dichloroethane	20	19.4	ug/Kg	97			75	125	
	2-Butanone	100	110	ug/Kg	110			30	160	
	Carbon Tetrachloride	20	19.6	ug/Kg	98			65	135	
	cis-1,2-Dichloroethene	20	20.4	ug/Kg	102			65	125	
	Chloroform	20	20.8	ug/Kg	104			70	125	
	1,1,1-Trichloroethane	20	20.3	ug/Kg	102			70	135	
	Benzene	20	20.1	ug/Kg	101			75	125	
	1,2-Dichloroethane	20	21	ug/Kg	105			70	135	
	Trichloroethene	20	19.8	ug/Kg	99			75	125	
	Toluene	20	20.3	ug/Kg	102			70	125	
	Tetrachloroethene	20	20.1	ug/Kg	101			65	140	
	Chlorobenzene	20	20.8	ug/Kg	104			75	125	
	Ethyl Benzene	20	20.8	ug/Kg	104			75	125	
	m/p-Xylenes	40	41.1	ug/Kg	103			80	125	
	o-Xylene	20	20.2	ug/Kg	101			75	125	
	N-propylbenzene	20	20.8	ug/Kg	104			65	135	
	1,3,5-Trimethylbenzene	20	20.5	ug/Kg	103			65	135	
	tert-Butylbenzene	20	20.5	ug/Kg	103			65	130	
	1,2,4-Trimethylbenzene	20	21.4	ug/Kg	107			65	135	
	Sec-butylbenzene	20	20.8	ug/Kg	104			65	130	
	1,3-Dichlorobenzene	20	20.5	ug/Kg	103			70	125	
	1,4-Dichlorobenzene	20	20.4	ug/Kg	102			70	125	
	n-Butylbenzene	20	21.7	ug/Kg	109			65	140	
	1,2-Dichlorobenzene	20	20.9	ug/Kg	104			75	120	
	1,4-Dioxane	400	380	ug/Kg	95			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VF038749.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VF0802SBS01	Vinyl chloride	20	19.9	ug/Kg	100			67	130	
	1,1-Dichloroethene	20	20.3	ug/Kg	102			74	130	
	Acetone	100	90.1	ug/Kg	90			57	135	
	Methyl tert-butyl Ether	20	18.7	ug/Kg	94			76	123	
	Methylene Chloride	20	22.3	ug/Kg	112			73	134	
	trans-1,2-Dichloroethene	20	21.5	ug/Kg	108			76	125	
	1,1-Dichloroethane	20	20.7	ug/Kg	104			78	124	
	2-Butanone	100	92.6	ug/Kg	93			68	132	
	Carbon Tetrachloride	20	20.2	ug/Kg	101			76	127	
	cis-1,2-Dichloroethene	20	19.9	ug/Kg	100			78	122	
	Chloroform	20	20.9	ug/Kg	104			79	122	
	1,1,1-Trichloroethane	20	20.3	ug/Kg	102			76	126	
	Benzene	20	20.7	ug/Kg	104			79	124	
	1,2-Dichloroethane	20	20.2	ug/Kg	101			78	124	
	Trichloroethene	20	20.8	ug/Kg	104			78	124	
	Toluene	20	20.6	ug/Kg	103			78	124	
	Tetrachloroethene	20	19.8	ug/Kg	99			67	134	
	Chlorobenzene	20	20.9	ug/Kg	104			80	121	
	Ethyl Benzene	20	21.6	ug/Kg	108			80	123	
	m/p-Xylenes	40	42.1	ug/Kg	105			79	126	
	o-Xylene	20	20.2	ug/Kg	101			80	122	
	N-propylbenzene	20	22.2	ug/Kg	111			80	125	
	1,3,5-Trimethylbenzene	20	21.8	ug/Kg	109			81	123	
	tert-Butylbenzene	20	21.3	ug/Kg	106			81	123	
	1,2,4-Trimethylbenzene	20	21	ug/Kg	105			81	122	
	Sec-butylbenzene	20	22.4	ug/Kg	112			81	126	
	1,3-Dichlorobenzene	20	19.8	ug/Kg	99			82	120	
	1,4-Dichlorobenzene	20	20.7	ug/Kg	104			81	120	
	n-Butylbenzene	20	21.8	ug/Kg	109			75	129	
	1,2-Dichlorobenzene	20	19.9	ug/Kg	100			82	118	
	1,4-Dioxane	400	350	ug/Kg	88			50	150	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VF038805.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VF0806SBS01	Vinyl chloride	20	23	ug/Kg	115			67	130	
	1,1-Dichloroethene	20	21.9	ug/Kg	110			74	130	
	Acetone	100	100	ug/Kg	100			57	135	
	Methyl tert-butyl Ether	20	23	ug/Kg	115			76	123	
	Methylene Chloride	20	24.6	ug/Kg	123			73	134	
	trans-1,2-Dichloroethene	20	22.1	ug/Kg	111			76	125	
	1,1-Dichloroethane	20	21.8	ug/Kg	109			78	124	
	2-Butanone	100	110	ug/Kg	110			68	132	
	Carbon Tetrachloride	20	21.3	ug/Kg	106			76	127	
	cis-1,2-Dichloroethene	20	20.6	ug/Kg	103			78	122	
	Chloroform	20	20.7	ug/Kg	104			79	122	
	1,1,1-Trichloroethane	20	21.2	ug/Kg	106			76	126	
	Benzene	20	21.1	ug/Kg	106			79	124	
	1,2-Dichloroethane	20	20.3	ug/Kg	102			78	124	
	Trichloroethene	20	20.6	ug/Kg	103			78	124	
	Toluene	20	21.7	ug/Kg	109			78	124	
	Tetrachloroethene	20	19.5	ug/Kg	98			67	134	
	Chlorobenzene	20	20.3	ug/Kg	102			80	121	
	Ethyl Benzene	20	20.8	ug/Kg	104			80	123	
	m/p-Xylenes	40	40.4	ug/Kg	101			79	126	
	o-Xylene	20	20.9	ug/Kg	104			80	122	
	N-propylbenzene	20	20.2	ug/Kg	101			80	125	
	1,3,5-Trimethylbenzene	20	20	ug/Kg	100			81	123	
	tert-Butylbenzene	20	20.1	ug/Kg	101			81	123	
	1,2,4-Trimethylbenzene	20	19.6	ug/Kg	98			81	122	
	Sec-butylbenzene	20	19.9	ug/Kg	100			81	126	
	1,3-Dichlorobenzene	20	20	ug/Kg	100			82	120	
	1,4-Dichlorobenzene	20	19.7	ug/Kg	99			81	120	
	n-Butylbenzene	20	20.5	ug/Kg	103			75	129	
	1,2-Dichlorobenzene	20	19.6	ug/Kg	98			82	118	
	1,4-Dioxane	400	450	ug/Kg	113			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VF038824.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VF0807SBS01	Vinyl chloride	20	21.6	ug/Kg	108			67	130	
	1,1-Dichloroethene	20	21.7	ug/Kg	109			74	130	
	Acetone	100	110	ug/Kg	110			57	135	
	Methyl tert-butyl Ether	20	21.6	ug/Kg	108			76	123	
	Methylene Chloride	20	23.8	ug/Kg	119			73	134	
	trans-1,2-Dichloroethene	20	20.7	ug/Kg	104			76	125	
	1,1-Dichloroethane	20	22.2	ug/Kg	111			78	124	
	2-Butanone	100	130	ug/Kg	130			68	132	
	Carbon Tetrachloride	20	19.3	ug/Kg	97			76	127	
	cis-1,2-Dichloroethene	20	19.6	ug/Kg	98			78	122	
	Chloroform	20	20.2	ug/Kg	101			79	122	
	1,1,1-Trichloroethane	20	19.7	ug/Kg	99			76	126	
	Benzene	20	19.6	ug/Kg	98			79	124	
	1,2-Dichloroethane	20	20.6	ug/Kg	103			78	124	
	Trichloroethene	20	18.5	ug/Kg	93			78	124	
	Toluene	20	19.9	ug/Kg	100			78	124	
	Tetrachloroethene	20	17.7	ug/Kg	89			67	134	
	Chlorobenzene	20	18.7	ug/Kg	94			80	121	
	Ethyl Benzene	20	19.6	ug/Kg	98			80	123	
	m/p-Xylenes	40	37.2	ug/Kg	93			79	126	
	o-Xylene	20	18.8	ug/Kg	94			80	122	
	N-propylbenzene	20	19.4	ug/Kg	97			80	125	
	1,3,5-Trimethylbenzene	20	18.6	ug/Kg	93			81	123	
	tert-Butylbenzene	20	18.1	ug/Kg	91			81	123	
	1,2,4-Trimethylbenzene	20	17.9	ug/Kg	90			81	122	
	Sec-butylbenzene	20	19	ug/Kg	95			81	126	
	1,3-Dichlorobenzene	20	18.7	ug/Kg	94			82	120	
	1,4-Dichlorobenzene	20	18.7	ug/Kg	94			81	120	
	n-Butylbenzene	20	19.2	ug/Kg	96			75	129	
	1,2-Dichlorobenzene	20	18.4	ug/Kg	92			82	118	
	1,4-Dioxane	400	410	ug/Kg	103			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C Datafile : VH052221.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VH0731WBS01	Vinyl chloride	20	22.3	ug/L	112			65	137	
	1,1-Dichloroethene	20	20	ug/L	100			69	134	
	Acetone	100	100	ug/L	100			41	181	
	Methyl tert-butyl Ether	20	20.7	ug/L	104			72	136	
	Methylene Chloride	20	21.2	ug/L	106			67	138	
	trans-1,2-Dichloroethene	20	21.3	ug/L	106			72	132	
	1,1-Dichloroethane	20	21.4	ug/L	107			74	135	
	2-Butanone	100	110	ug/L	110			64	146	
	Carbon Tetrachloride	20	19.3	ug/L	97			71	134	
	cis-1,2-Dichloroethene	20	20.7	ug/L	104			74	130	
	Chloroform	20	21.8	ug/L	109			74	134	
	1,1,1-Trichloroethane	20	21	ug/L	105			74	133	
	Benzene	20	19.8	ug/L	99			75	125	
	1,2-Dichloroethane	20	19.9	ug/L	100			76	130	
	Trichloroethene	20	19.7	ug/L	99			73	127	
	Toluene	20	20.2	ug/L	101			74	125	
	Tetrachloroethene	20	19.8	ug/L	99			46	157	
	Chlorobenzene	20	18.8	ug/L	94			76	123	
	Ethyl Benzene	20	17.1	ug/L	86			75	126	
	m/p-Xylenes	40	36	ug/L	90			74	126	
	o-Xylene	20	19.7	ug/L	99			73	127	
	N-propylbenzene	20	20.9	ug/L	104			71	126	
	1,3,5-Trimethylbenzene	20	20.9	ug/L	104			71	127	
	tert-Butylbenzene	20	20.9	ug/L	104			66	129	
	1,2,4-Trimethylbenzene	20	20.8	ug/L	104			69	130	
	Sec-butylbenzene	20	21.1	ug/L	106			72	126	
	1,3-Dichlorobenzene	20	19	ug/L	95			70	125	
	1,4-Dichlorobenzene	20	20	ug/L	100			71	124	
	n-Butylbenzene	20	19.3	ug/L	97			68	128	
	1,2-Dichlorobenzene	20	19.9	ug/L	100			71	126	
	1,4-Dioxane	400	330	ug/L	83			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VH052222.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VH0731WBSD01	Vinyl chloride	20	23.7	ug/L	119	6		65	137	20
	1,1-Dichloroethene	20	21	ug/L	105	5		69	134	20
	Acetone	100	100	ug/L	100	0		41	181	20
	Methyl tert-butyl Ether	20	21.2	ug/L	106	2		72	136	20
	Methylene Chloride	20	21.2	ug/L	106	0		67	138	20
	trans-1,2-Dichloroethene	20	21	ug/L	105	1		72	132	20
	1,1-Dichloroethane	20	20.2	ug/L	101	6		74	135	20
	2-Butanone	100	100	ug/L	100	10		64	146	20
	Carbon Tetrachloride	20	19	ug/L	95	2		71	134	20
	cis-1,2-Dichloroethene	20	21.1	ug/L	106	2		74	130	20
	Chloroform	20	22	ug/L	110	1		74	134	20
	1,1,1-Trichloroethane	20	20	ug/L	100	5		74	133	20
	Benzene	20	19.3	ug/L	97	2		75	125	20
	1,2-Dichloroethane	20	19.9	ug/L	100	0		76	130	20
	Trichloroethene	20	18.8	ug/L	94	5		73	127	20
	Toluene	20	19.6	ug/L	98	3		74	125	20
	Tetrachloroethene	20	20.1	ug/L	101	2		46	157	20
	Chlorobenzene	20	20.7	ug/L	104	10		76	123	20
	Ethyl Benzene	20	20.3	ug/L	102	17		75	126	20
	m/p-Xylenes	40	39.7	ug/L	99	10		74	126	20
	o-Xylene	20	20.9	ug/L	104	5		73	127	20
	N-propylbenzene	20	20.3	ug/L	102	2		71	126	20
	1,3,5-Trimethylbenzene	20	21.7	ug/L	109	5		71	127	20
	tert-Butylbenzene	20	19.9	ug/L	100	4		66	129	20
	1,2,4-Trimethylbenzene	20	19.6	ug/L	98	6		69	130	20
	Sec-butylbenzene	20	22.3	ug/L	112	6		72	126	20
	1,3-Dichlorobenzene	20	18.2	ug/L	91	4		70	125	20
	1,4-Dichlorobenzene	20	19.9	ug/L	100	0		71	124	20
	n-Butylbenzene	20	19.8	ug/L	99	2		68	128	20
	1,2-Dichlorobenzene	20	19.7	ug/L	99	1		71	126	20
	1,4-Dioxane	400	350	ug/L	88	6		50	150	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8260-Low **Datafile :** VN007650.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0806WBS01	Vinyl chloride	20	19.6	ug/L	98			50	145	
	1,1-Dichloroethene	20	19.4	ug/L	97			70	130	
	Acetone	100	87.4	ug/L	87			40	140	
	Methyl tert-butyl Ether	20	18.8	ug/L	94			65	125	
	Methylene Chloride	20	19.9	ug/L	100			55	140	
	trans-1,2-Dichloroethene	20	19.5	ug/L	98			60	140	
	1,1-Dichloroethane	20	18.9	ug/L	95			70	135	
	2-Butanone	100	84.4	ug/L	84			30	150	
	Carbon Tetrachloride	20	21.6	ug/L	108			65	140	
	cis-1,2-Dichloroethene	20	19.6	ug/L	98			70	125	
	Chloroform	20	19.2	ug/L	96			65	135	
	1,1,1-Trichloroethane	20	19.6	ug/L	98			65	130	
	Benzene	20	20.6	ug/L	103			80	120	
	1,2-Dichloroethane	20	19.9	ug/L	100			70	130	
	Trichloroethene	20	22.1	ug/L	111			70	125	
	Toluene	20	21.1	ug/L	106			75	120	
	Tetrachloroethene	20	21.8	ug/L	109			45	150	
	Chlorobenzene	20	21.6	ug/L	108			80	120	
	Ethyl Benzene	20	20.9	ug/L	104			75	125	
	m/p-Xylenes	40	42.9	ug/L	107			75	130	
	o-Xylene	20	21.1	ug/L	106			80	120	
	N-propylbenzene	20	20.1	ug/L	101			70	130	
	1,3,5-Trimethylbenzene	20	20.5	ug/L	103			75	130	
	tert-Butylbenzene	20	20.7	ug/L	104			70	130	
	1,2,4-Trimethylbenzene	20	20.6	ug/L	103			75	130	
	Sec-butylbenzene	20	20.8	ug/L	104			70	125	
	1,3-Dichlorobenzene	20	21.6	ug/L	108			75	125	
	1,4-Dichlorobenzene	20	21.3	ug/L	106			75	125	
	n-Butylbenzene	20	20.6	ug/L	103			70	135	
	1,2-Dichlorobenzene	20	21.5	ug/L	108			70	120	
	1,4-Dioxane	400	400	ug/L	100			50	150	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0801SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038722.D Lab Sample ID: VF0801SBL01

Date Analyzed: 08/01/2013 Time Analyzed: 16:28

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0801SBS01	VF0801SBS01	VF038723.D	08/01/2013
CS-D-08	E3133-01	VF038732.D	08/01/2013
CS-D-09	E3133-02	VF038733.D	08/01/2013
CS-D-10	E3133-03	VF038734.D	08/01/2013
CS-D-11	E3133-04	VF038735.D	08/01/2013
CS-D-12	E3133-05	VF038736.D	08/01/2013
CS-D-13	E3133-06	VF038737.D	08/01/2013
CS-D-14	E3133-07	VF038738.D	08/01/2013
CS-D-14X	E3133-08	VF038739.D	08/02/2013
TS-D-02	E3133-14	VF038740.D	08/02/2013
TS-D-04	E3133-16	VF038742.D	08/02/2013
TS-D-05	E3133-17	VF038743.D	08/02/2013
TS-D-06	E3133-18	VF038744.D	08/02/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0802SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038748.D Lab Sample ID: VF0802SBL01

Date Analyzed: 08/02/2013 Time Analyzed: 11:23

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0802SBS01	VF0802SBS01	VF038749.D	08/02/2013
TS-D-03	E3133-15	VF038751.D	08/02/2013
TS-D-08	E3133-20	VF038753.D	08/02/2013
TS-D-08X	E3133-21	VF038754.D	08/02/2013
TS-D-07	E3133-19	VF038757.D	08/02/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0806SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038804.D Lab Sample ID: VF0806SBL01

Date Analyzed: 08/06/2013 Time Analyzed: 19:36

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0806SBS01	VF0806SBS01	VF038805.D	08/06/2013
CS-D-15	E3133-24	VF038814.D	08/07/2013
CS-D-15MS	E3133-25MS	VF038818.D	08/07/2013
CS-D-15MSD	E3133-26MSD	VF038819.D	08/07/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0807SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038823.D Lab Sample ID: VF0807SBL01

Date Analyzed: 08/07/2013 Time Analyzed: 11:42

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0807SBS01	VF0807SBS01	VF038824.D	08/07/2013
TS-D-09	E3133-30	VF038834.D	08/07/2013
TS-D-09MS	E3133-31MS	VF038841.D	08/07/2013
TS-D-09MSD	E3133-32MSD	VF038842.D	08/07/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VH0731WBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VH052220.D Lab Sample ID: VH0731WBL01

Date Analyzed: 08/01/2013 Time Analyzed: 02:43

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VH0731WBS01	VH0731WBS01	VH052221.D	08/01/2013
VH0731WBSD01	VH0731WBSD01	VH052222.D	08/01/2013
TB-002	E3133-09	VH052224.D	08/01/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0806WBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VN007649.D Lab Sample ID: VN0806WBL01

Date Analyzed: 08/06/2013 Time Analyzed: 13:02

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0806WBS01	VN0806WBS01	VN007650.D	08/06/2013
TB-003	E3133-33	VN007657.D	08/06/2013

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038712.D BFB Injection Date: 08/01/2013

Instrument ID: MSVOA_F BFB Injection Time: 09:06

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.6
75	30.0 - 60.0% of mass 95	56.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.2 (0.3) 1
174	50.0 - 100.0% of mass 95	71.5
175	5.0 - 9.0% of mass 174	4.9 (6.8) 1
176	95.0 - 101.0% of mass 174	70.3 (98.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VF038713.D	08/01/2013	11:30
VSTDICC010	VSTDICC010	VF038714.D	08/01/2013	11:58
VSTDICC020	VSTDICC020	VF038715.D	08/01/2013	12:25
VSTDICCC050	VSTDICCC050	VF038716.D	08/01/2013	12:52
VSTDICC100	VSTDICC100	VF038717.D	08/01/2013	13:20
VSTDICC150	VSTDICC150	VF038718.D	08/01/2013	13:47

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038720.D BFB Injection Date: 08/01/2013

Instrument ID: MSVOA_F BFB Injection Time: 15:15

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.6
75	30.0 - 60.0% of mass 95	55.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	71.5
175	5.0 - 9.0% of mass 174	5.5 (7.7) 1
176	95.0 - 101.0% of mass 174	70.4 (98.5) 1
177	5.0 - 9.0% of mass 176	4.6 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VF038721.D	08/01/2013	15:50
VF0801SBL01	VF0801SBL01	VF038722.D	08/01/2013	16:28
VF0801SBS01	VF0801SBS01	VF038723.D	08/01/2013	17:03
CS-D-08	E3133-01	VF038732.D	08/01/2013	21:09
CS-D-09	E3133-02	VF038733.D	08/01/2013	21:36
CS-D-10	E3133-03	VF038734.D	08/01/2013	22:03
CS-D-11	E3133-04	VF038735.D	08/01/2013	22:30
CS-D-12	E3133-05	VF038736.D	08/01/2013	22:58
CS-D-13	E3133-06	VF038737.D	08/01/2013	23:25
CS-D-14	E3133-07	VF038738.D	08/01/2013	23:52
CS-D-14X	E3133-08	VF038739.D	08/02/2013	00:19
TS-D-02	E3133-14	VF038740.D	08/02/2013	00:46
TS-D-04	E3133-16	VF038742.D	08/02/2013	01:40
TS-D-05	E3133-17	VF038743.D	08/02/2013	02:08
TS-D-06	E3133-18	VF038744.D	08/02/2013	02:35

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038746.D BFB Injection Date: 08/02/2013

Instrument ID: MSVOA_F BFB Injection Time: 10:10

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27.6
75	30.0 - 60.0% of mass 95	56.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.4 (0.6) 1
174	50.0 - 100.0% of mass 95	71.1
175	5.0 - 9.0% of mass 174	4.8 (6.7) 1
176	95.0 - 101.0% of mass 174	71.7 (100.9) 1
177	5.0 - 9.0% of mass 176	6.2 (8.7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VF038747.D	08/02/2013	10:46
VF0802SBL01	VF0802SBL01	VF038748.D	08/02/2013	11:23
VF0802SBS01	VF0802SBS01	VF038749.D	08/02/2013	11:57
TS-D-03	E3133-15	VF038751.D	08/02/2013	12:52
TS-D-08	E3133-20	VF038753.D	08/02/2013	13:46
TS-D-08X	E3133-21	VF038754.D	08/02/2013	14:14
TS-D-07	E3133-19	VF038757.D	08/02/2013	15:36

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038796.D BFB Injection Date: 08/06/2013

Instrument ID: MSVOA_F BFB Injection Time: 15:13

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.9
75	30.0 - 60.0% of mass 95	52.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.3 (7.4) 1
176	95.0 - 101.0% of mass 174	69.9 (97.6) 1
177	5.0 - 9.0% of mass 176	4.9 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VF038797.D	08/06/2013	15:50
VSTDICC010	VSTDICC010	VF038798.D	08/06/2013	16:18
VSTDICC020	VSTDICC020	VF038799.D	08/06/2013	16:45
VSTDICCC050	VSTDICCC050	VF038800.D	08/06/2013	17:12
VSTDICC100	VSTDICC100	VF038801.D	08/06/2013	17:40
VSTDICC150	VSTDICC150	VF038802.D	08/06/2013	18:07
VF0806SBL01	VF0806SBL01	VF038804.D	08/06/2013	19:36
VF0806SBS01	VF0806SBS01	VF038805.D	08/06/2013	20:10
CS-D-15	E3133-24	VF038814.D	08/07/2013	00:15
CS-D-15MS	E3133-25MS	VF038818.D	08/07/2013	02:04
CS-D-15MSD	E3133-26MSD	VF038819.D	08/07/2013	02:31

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038821.D BFB Injection Date: 08/07/2013

Instrument ID: MSVOA_F BFB Injection Time: 09:02

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	28.5
75	30.0 - 60.0% of mass 95	58.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	75.2
175	5.0 - 9.0% of mass 174	4.7 (6.3) 1
176	95.0 - 101.0% of mass 174	73 (97.1) 1
177	5.0 - 9.0% of mass 176	4.6 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VF038822.D	08/07/2013	10:16
VF0807SBL01	VF0807SBL01	VF038823.D	08/07/2013	11:42
VF0807SBS01	VF0807SBS01	VF038824.D	08/07/2013	12:09
TS-D-09	E3133-30	VF038834.D	08/07/2013	16:43
TS-D-09MS	E3133-31MS	VF038841.D	08/07/2013	19:54
TS-D-09MSD	E3133-32MSD	VF038842.D	08/07/2013	20:21

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VH052209.D BFB Injection Date: 07/31/2013

Instrument ID: MSVOA_H BFB Injection Time: 19:08

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27
75	30.0 - 60.0% of mass 95	46.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.6 (0.7) 1
174	50.0 - 100.0% of mass 95	92.5
175	5.0 - 9.0% of mass 174	6.6 (7.1) 1
176	95.0 - 101.0% of mass 174	89.7 (97) 1
177	5.0 - 9.0% of mass 176	5.7 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VH052211.D	07/31/2013	20:05
VSTDICC020	VSTDICC020	VH052212.D	07/31/2013	20:32
VSTDICCC050	VSTDICCC050	VH052213.D	07/31/2013	20:58
VSTDICC100	VSTDICC100	VH052214.D	07/31/2013	21:25
VSTDICC150	VSTDICC150	VH052215.D	07/31/2013	21:51
VSTDICC200	VSTDICC200	VH052216.D	07/31/2013	22:18

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VH052218.D BFB Injection Date: 08/01/2013

Instrument ID: MSVOA_H BFB Injection Time: 00:56

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.8
75	30.0 - 60.0% of mass 95	46.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.2 (0.3) 1
174	50.0 - 100.0% of mass 95	81.7
175	5.0 - 9.0% of mass 174	6.5 (7.9) 1
176	95.0 - 101.0% of mass 174	81.1 (99.3) 1
177	5.0 - 9.0% of mass 176	4.6 (5.6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VH052219.D	08/01/2013	01:50
VH0731WBL01	VH0731WBL01	VH052220.D	08/01/2013	02:43
VH0731WBS01	VH0731WBS01	VH052221.D	08/01/2013	03:10
VH0731WBSD01	VH0731WBSD01	VH052222.D	08/01/2013	03:37
TB-002	E3133-09	VH052224.D	08/01/2013	04:30

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VN007573.D BFB Injection Date: 08/04/2013

Instrument ID: MSVOA_N BFB Injection Time: 13:08

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	50.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.7 (0.8) 1
174	50.0 - 100.0% of mass 95	95.3
175	5.0 - 9.0% of mass 174	6.7 (7.1) 1
176	95.0 - 101.0% of mass 174	93.8 (98.4) 1
177	5.0 - 9.0% of mass 176	6.2 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN007574.D	08/04/2013	13:36
VSTDICC005	VSTDICC005	VN007575.D	08/04/2013	14:05
VSTDICC020	VSTDICC020	VN007576.D	08/04/2013	14:33
VSTDICCC050	VSTDICCC050	VN007577.D	08/04/2013	15:01
VSTDICC100	VSTDICC100	VN007578.D	08/04/2013	15:29
VSTDICC200	VSTDICC200	VN007579.D	08/04/2013	15:57

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VN007647.D BFB Injection Date: 08/06/2013

Instrument ID: MSVOA_N BFB Injection Time: 10:46

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	45.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6 (0.6) 1
174	50.0 - 100.0% of mass 95	98.7
175	5.0 - 9.0% of mass 174	7.7 (7.8) 1
176	95.0 - 101.0% of mass 174	96.4 (97.6) 1
177	5.0 - 9.0% of mass 176	6.3 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN007648.D	08/06/2013	12:05
VN0806WBL01	VN0806WBL01	VN007649.D	08/06/2013	13:02
VN0806WBS01	VN0806WBS01	VN007650.D	08/06/2013	13:39
TB-003	E3133-33	VN007657.D	08/06/2013	17:09

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038721.D Date Analyzed: 08/01/2013

Instrument ID: MSVOA_F Time Analyzed: 15:50

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	176166	4.40	277366	5.14	264080	9.34
UPPER LIMIT	352332	4.9	554732	5.64	528160	9.84
LOWER LIMIT	88083	3.9	138683	4.64	132040	8.84
EPA SAMPLE NO.						
CS-D-08	167801	4.40	265457	5.15	249480	9.35
CS-D-09	178896	4.41	275333	5.15	248448	9.35
CS-D-10	161579	4.42	257761	5.15	236550	9.35
CS-D-11	160307	4.41	253672	5.15	236973	9.34
CS-D-12	175036	4.41	262385	5.15	243335	9.35
CS-D-13	129967	4.41	204750	5.15	201849	9.35
CS-D-14	164031	4.41	254861	5.15	226006	9.35
CS-D-14X	133655	4.41	214542	5.15	196999	9.35
TS-D-02	145100	4.41	223428	5.15	199173	9.35
TS-D-04	129878	4.41	202188	5.16	209395	9.35
TS-D-05	145260	4.41	235711	5.16	225065	9.35
TS-D-06	150564	4.41	228618	5.16	194554	9.35
VF0801SBL01	209498	4.40	309737	5.15	290275	9.34
VF0801SBS01	196699	4.40	305095	5.14	285595	9.35

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038721.D Date Analyzed: 08/01/2013

Instrument ID: MSVOA_F Time Analyzed: 15:50

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	123206	12.26				
UPPER LIMIT	246412	12.76				
LOWER LIMIT	61603	11.76				
EPA SAMPLE NO.						
CS-D-08	86640	12.25				
CS-D-09	89200	12.25				
CS-D-10	83920	12.26				
CS-D-11	81996	12.26				
CS-D-12	84089	12.26				
CS-D-13	70374	12.25				
CS-D-14	81859	12.25				
CS-D-14X	71198	12.25				
TS-D-02	64696	12.26				
TS-D-04	80876	12.26				
TS-D-05	82461	12.26				
TS-D-06	63437	12.26				
VF0801SBL01	116307	12.25				
VF0801SBS01	127101	12.25				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038747.D Date Analyzed: 08/02/2013

Instrument ID: MSVOA_F Time Analyzed: 10:46

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	181636	4.40	274797	5.14	246230	9.34
UPPER LIMIT	363272	4.9	549594	5.64	492460	9.84
LOWER LIMIT	90818	3.9	137399	4.64	123115	8.84
EPA SAMPLE NO.						
TS-D-03	161211	4.39	246672	5.14	210192	9.34
TS-D-07	150149	4.40	233622	5.15	213012	9.34
TS-D-08	149493	4.40	235343	5.15	199560	9.34
TS-D-08X	130853	4.40	206612	5.14	202329	9.34
VF0802SBL01	183406	4.40	270412	5.14	248587	9.34
VF0802SBS01	167615	4.40	248955	5.14	227691	9.34

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038747.D Date Analyzed: 08/02/2013

Instrument ID: MSVOA_F Time Analyzed: 10:46

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	111739	12.24				
UPPER LIMIT	223478	12.74				
LOWER LIMIT	55869.5	11.74				
EPA SAMPLE NO.						
TS-D-03	76322	12.26				
TS-D-07	69151	12.25				
TS-D-08	62261	12.25				
TS-D-08X	64515	12.25				
VF0802SBL01	87538	12.25				
VF0802SBS01	96026	12.24				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038800.D Date Analyzed: 08/06/2013

Instrument ID: MSVOA_F Time Analyzed: 17:12

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	217466	4.38	319251	5.13	278498	9.33
UPPER LIMIT	434932	4.88	638502	5.63	556996	9.83
LOWER LIMIT	108733	3.88	159626	4.63	139249	8.83
EPA SAMPLE NO.						
CS-D-15	153391	4.39	239372	5.13	212355	9.33
CS-D-15MS	154006	4.39	246656	5.14	213683	9.34
CS-D-15MSD	143328	4.39	224902	5.13	219799	9.33
VF0806SBL01	211686	4.38	311124	5.13	304250	9.33
VF0806SBS01	196399	4.39	291436	5.13	279202	9.33

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038800.D Date Analyzed: 08/06/2013

Instrument ID: MSVOA_F Time Analyzed: 17:12

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	131490	12.24				
UPPER LIMIT	262980	12.74				
LOWER LIMIT	65745	11.74				
EPA SAMPLE NO.						
CS-D-15	72413	12.24				
CS-D-15MS	88713	12.24				
CS-D-15MSD	97357	12.24				
VF0806SBL01	133546	12.25				
VF0806SBS01	132495	12.24				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038822.D Date Analyzed: 08/07/2013

Instrument ID: MSVOA_F Time Analyzed: 10:16

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	158583	4.40	243928	5.13	236496	9.33
UPPER LIMIT	317166	4.9	487856	5.63	472992	9.83
LOWER LIMIT	79291.5	3.9	121964	4.63	118248	8.83
EPA SAMPLE NO.						
TS-D-09	115197	4.40	186508	5.14	173465	9.33
TS-D-09MS	156390	4.40	244613	5.13	215290	9.33
TS-D-09MSD	159224	4.40	240500	5.14	210450	9.33
VF0807SBL01	162414	4.38	253888	5.13	234354	9.33
VF0807SBS01	172115	4.39	263116	5.13	240275	9.33

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VF038822.D Date Analyzed: 08/07/2013

Instrument ID: MSVOA_F Time Analyzed: 10:16

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	105746	12.25				
UPPER LIMIT	211492	12.75				
LOWER LIMIT	52873	11.75				
EPA SAMPLE NO.						
TS-D-09	59528	12.25				
TS-D-09MS	92409	12.25				
TS-D-09MSD	88443	12.25				
VF0807SBL01	88449	12.24				
VF0807SBS01	110970	12.24				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VH052219.D Date Analyzed: 08/01/2013

Instrument ID: MSVOA_H Time Analyzed: 01:50

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	102403	4.89	148376	5.62	126231	9.76
UPPER LIMIT	204806	5.39	296752	6.12	252462	10.26
LOWER LIMIT	51201.5	4.39	74188	5.12	63115.5	9.26
EPA SAMPLE NO.						
TB-002	69626	4.89	95753	5.62	87532	9.76
VH0731WBL01	75647	4.89	104628	5.62	92524	9.76
VH0731WBS01	90607	4.90	135644	5.62	124802	9.76
VH0731WBSD01	92626	4.90	139103	5.62	116943	9.76

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VH052219.D Date Analyzed: 08/01/2013

Instrument ID: MSVOA_H Time Analyzed: 01:50

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	59337	12.51				
UPPER LIMIT	118674	13.01				
LOWER LIMIT	29668.5	12.01				
EPA SAMPLE NO.						
TB-002	40735	12.51				
VH0731WBL01	43123	12.51				
VH0731WBS01	55127	12.51				
VH0731WBSD01	57195	12.51				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VN007648.D Date Analyzed: 08/06/2013

Instrument ID: MSVOA_N Time Analyzed: 12:05

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	330315	7.87	474705	8.78	431913	11.61
UPPER LIMIT	660630	8.37	949410	9.28	863826	12.11
LOWER LIMIT	165158	7.37	237353	8.28	215957	11.11
EPA SAMPLE NO.						
TB-003	366336	7.87	519216	8.78	456778	11.61
VN0806WBL01	366657	7.87	516234	8.79	449132	11.61
VN0806WBS01	326034	7.87	467069	8.78	424178	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: VN007648.D Date Analyzed: 08/06/2013

Instrument ID: MSVOA_N Time Analyzed: 12:05

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	219771	13.56				
UPPER LIMIT	439542	14.06				
LOWER LIMIT	109886	13.06				
EPA SAMPLE NO.						
TB-003	215246	13.56				
VN0806WBL01	208422	13.56				
VN0806WBS01	216362	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	3.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064508.D	1	08/01/13	08/01/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	34.5	U	8	34.5	340	ug/Kg
95-48-7	2-Methylphenol	34.5	U	18.7	34.5	340	ug/Kg
65794-96-9	3+4-Methylphenols	34.5	U	17.9	34.5	340	ug/Kg
91-20-3	Naphthalene	34.5	U	11.9	34.5	340	ug/Kg
208-96-8	Acenaphthylene	34.5	U	8.7	34.5	340	ug/Kg
83-32-9	Acenaphthene	34.5	U	9.7	34.5	340	ug/Kg
132-64-9	Dibenzofuran	34.5	U	13.5	34.5	340	ug/Kg
86-73-7	Fluorene	34.5	U	13	34.5	340	ug/Kg
118-74-1	Hexachlorobenzene	34.5	U	14.1	34.5	340	ug/Kg
87-86-5	Pentachlorophenol	34.5	U	23.6	34.5	340	ug/Kg
85-01-8	Phenanthrene	34.5	U	9.3	34.5	340	ug/Kg
120-12-7	Anthracene	34.5	U	7	34.5	340	ug/Kg
206-44-0	Fluoranthene	34.5	U	6.9	34.5	340	ug/Kg
129-00-0	Pyrene	34.5	U	8.3	34.5	340	ug/Kg
56-55-3	Benzo(a)anthracene	34.5	U	16.5	34.5	340	ug/Kg
218-01-9	Chrysene	34.5	U	15.6	34.5	340	ug/Kg
205-99-2	Benzo(b)fluoranthene	34.5	U	11.3	34.5	340	ug/Kg
207-08-9	Benzo(k)fluoranthene	34.5	U	16.3	34.5	340	ug/Kg
50-32-8	Benzo(a)pyrene	34.5	U	7.5	34.5	340	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	34.5	U	11.5	34.5	340	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	34.5	U	9.9	34.5	340	ug/Kg
191-24-2	Benzo(g,h,i)perylene	34.5	U	14	34.5	340	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	97.8		28 - 127		65%	SPK: 150
13127-88-3	Phenol-d6	95.1		34 - 127		63%	SPK: 150
4165-60-0	Nitrobenzene-d5	71.6		31 - 132		72%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.7		39 - 123		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		75%	SPK: 150
1718-51-0	Terphenyl-d14	68.6		37 - 115		69%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	86912	5.74				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	3.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064508.D	1	08/01/13	08/01/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	328473	6.99				
15067-26-2	Acenaphthene-d10	182549	8.74				
1517-22-2	Phenanthrene-d10	347672	10.21				
1719-03-5	Chrysene-d12	372232	12.84				
1520-96-3	Perylene-d12	359446	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6.5
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064509.D	1	08/01/13	08/01/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.5	U	8.2	35.5	350	ug/Kg
95-48-7	2-Methylphenol	35.5	U	19.3	35.5	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.5	U	18.4	35.5	350	ug/Kg
91-20-3	Naphthalene	35.5	U	12.3	35.5	350	ug/Kg
208-96-8	Acenaphthylene	35.5	U	9	35.5	350	ug/Kg
83-32-9	Acenaphthene	35.5	U	10	35.5	350	ug/Kg
132-64-9	Dibenzofuran	35.5	U	13.9	35.5	350	ug/Kg
86-73-7	Fluorene	35.5	U	13.4	35.5	350	ug/Kg
118-74-1	Hexachlorobenzene	35.5	U	14.5	35.5	350	ug/Kg
87-86-5	Pentachlorophenol	35.5	U	24.3	35.5	350	ug/Kg
85-01-8	Phenanthrene	35.5	U	9.6	35.5	350	ug/Kg
120-12-7	Anthracene	35.5	U	7.2	35.5	350	ug/Kg
206-44-0	Fluoranthene	35.5	U	7.1	35.5	350	ug/Kg
129-00-0	Pyrene	35.5	U	8.5	35.5	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.5	U	16.9	35.5	350	ug/Kg
218-01-9	Chrysene	35.5	U	16.1	35.5	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.5	U	11.6	35.5	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.5	U	16.7	35.5	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.5	U	7.7	35.5	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.5	U	11.8	35.5	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.5	U	10.2	35.5	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.5	U	14.4	35.5	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	95.5		28 - 127		64%	SPK: 150
13127-88-3	Phenol-d6	94.5		34 - 127		63%	SPK: 150
4165-60-0	Nitrobenzene-d5	71.6		31 - 132		72%	SPK: 100
321-60-8	2-Fluorobiphenyl	78.8		39 - 123		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		77%	SPK: 150
1718-51-0	Terphenyl-d14	67.2		37 - 115		67%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	88241	5.74				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6.5
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064509.D	1	08/01/13	08/01/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	330816	6.99				
15067-26-2	Acenaphthene-d10	180298	8.74				
1517-22-2	Phenanthrene-d10	347753	10.21				
1719-03-5	Chrysene-d12	365209	12.84				
1520-96-3	Perylene-d12	355450	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064510.D	1	08/01/13	08/02/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.4	U	8.2	35.4	350	ug/Kg
95-48-7	2-Methylphenol	35.4	U	19.2	35.4	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.4	U	18.4	35.4	350	ug/Kg
91-20-3	Naphthalene	35.4	U	12.2	35.4	350	ug/Kg
208-96-8	Acenaphthylene	35.4	U	8.9	35.4	350	ug/Kg
83-32-9	Acenaphthene	35.4	U	10	35.4	350	ug/Kg
132-64-9	Dibenzofuran	35.4	U	13.8	35.4	350	ug/Kg
86-73-7	Fluorene	35.4	U	13.4	35.4	350	ug/Kg
118-74-1	Hexachlorobenzene	35.4	U	14.4	35.4	350	ug/Kg
87-86-5	Pentachlorophenol	35.4	U	24.2	35.4	350	ug/Kg
85-01-8	Phenanthrene	35.4	U	9.5	35.4	350	ug/Kg
120-12-7	Anthracene	35.4	U	7.2	35.4	350	ug/Kg
206-44-0	Fluoranthene	35.4	U	7.1	35.4	350	ug/Kg
129-00-0	Pyrene	35.4	U	8.5	35.4	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.4	U	16.9	35.4	350	ug/Kg
218-01-9	Chrysene	35.4	U	16	35.4	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.4	U	11.6	35.4	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.4	U	16.7	35.4	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.4	U	7.6	35.4	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.4	U	11.8	35.4	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.4	U	10.2	35.4	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.4	U	14.3	35.4	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	68.7		28 - 127		46%	SPK: 150
13127-88-3	Phenol-d6	78.5		34 - 127		52%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.5		31 - 132		58%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.2		39 - 123		66%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.2		30 - 133		53%	SPK: 150
1718-51-0	Terphenyl-d14	53.4		37 - 115		53%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	87380	5.74				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064510.D	1	08/01/13	08/02/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	325042	6.99				
15067-26-2	Acenaphthene-d10	172469	8.73				
1517-22-2	Phenanthrene-d10	329053	10.21				
1719-03-5	Chrysene-d12	344366	12.84				
1520-96-3	Perylene-d12	341579	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064549.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.4	U	8.2	35.4	350	ug/Kg
95-48-7	2-Methylphenol	35.4	U	19.2	35.4	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.4	U	18.3	35.4	350	ug/Kg
91-20-3	Naphthalene	35.4	U	12.2	35.4	350	ug/Kg
208-96-8	Acenaphthylene	35.4	U	8.9	35.4	350	ug/Kg
83-32-9	Acenaphthene	35.4	U	10	35.4	350	ug/Kg
132-64-9	Dibenzofuran	35.4	U	13.8	35.4	350	ug/Kg
86-73-7	Fluorene	35.4	U	13.4	35.4	350	ug/Kg
118-74-1	Hexachlorobenzene	35.4	U	14.4	35.4	350	ug/Kg
87-86-5	Pentachlorophenol	35.4	U	24.2	35.4	350	ug/Kg
85-01-8	Phenanthrene	35.4	U	9.5	35.4	350	ug/Kg
120-12-7	Anthracene	35.4	U	7.2	35.4	350	ug/Kg
206-44-0	Fluoranthene	35.4	U	7.1	35.4	350	ug/Kg
129-00-0	Pyrene	35.4	U	8.5	35.4	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.4	U	16.9	35.4	350	ug/Kg
218-01-9	Chrysene	35.4	U	16	35.4	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.4	U	11.6	35.4	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.4	U	16.7	35.4	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.4	U	7.6	35.4	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.4	U	11.8	35.4	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.4	U	10.2	35.4	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.4	U	14.3	35.4	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	92.5		28 - 127		62%	SPK: 150
13127-88-3	Phenol-d6	81.1		34 - 127		54%	SPK: 150
4165-60-0	Nitrobenzene-d5	69.9		31 - 132		70%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.7		39 - 123		74%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		73%	SPK: 150
1718-51-0	Terphenyl-d14	65.5		37 - 115		66%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	83729	5.73				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	6
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064549.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	316779	6.99				
15067-26-2	Acenaphthene-d10	182017	8.73				
1517-22-2	Phenanthrene-d10	366281	10.2				
1719-03-5	Chrysene-d12	372772	12.83				
1520-96-3	Perylene-d12	353856	14.17				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	10.7
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064550.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	37.3	U	8.6	37.3	370	ug/Kg
95-48-7	2-Methylphenol	37.3	U	20.3	37.3	370	ug/Kg
65794-96-9	3+4-Methylphenols	37.3	U	19.4	37.3	370	ug/Kg
91-20-3	Naphthalene	37.3	U	12.9	37.3	370	ug/Kg
208-96-8	Acenaphthylene	37.3	U	9.4	37.3	370	ug/Kg
83-32-9	Acenaphthene	37.3	U	10.5	37.3	370	ug/Kg
132-64-9	Dibenzofuran	37.3	U	14.6	37.3	370	ug/Kg
86-73-7	Fluorene	37.3	U	14.1	37.3	370	ug/Kg
118-74-1	Hexachlorobenzene	37.3	U	15.2	37.3	370	ug/Kg
87-86-5	Pentachlorophenol	37.3	U	25.5	37.3	370	ug/Kg
85-01-8	Phenanthrene	37.3	U	10.1	37.3	370	ug/Kg
120-12-7	Anthracene	37.3	U	7.6	37.3	370	ug/Kg
206-44-0	Fluoranthene	37.3	U	7.5	37.3	370	ug/Kg
129-00-0	Pyrene	37.3	U	9	37.3	370	ug/Kg
56-55-3	Benzo(a)anthracene	37.3	U	17.8	37.3	370	ug/Kg
218-01-9	Chrysene	37.3	U	16.9	37.3	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	37.3	U	12.2	37.3	370	ug/Kg
207-08-9	Benzo(k)fluoranthene	37.3	U	17.6	37.3	370	ug/Kg
50-32-8	Benzo(a)pyrene	37.3	U	8.1	37.3	370	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	37.3	U	12.4	37.3	370	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	37.3	U	10.7	37.3	370	ug/Kg
191-24-2	Benzo(g,h,i)perylene	37.3	U	15.1	37.3	370	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	97.9		28 - 127		65%	SPK: 150
13127-88-3	Phenol-d6	84.6		34 - 127		56%	SPK: 150
4165-60-0	Nitrobenzene-d5	67.4		31 - 132		67%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.6		39 - 123		77%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		77%	SPK: 150
1718-51-0	Terphenyl-d14	67		37 - 115		67%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	78021	5.73				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	10.7
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064550.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	309524	6.99				
15067-26-2	Acenaphthene-d10	164784	8.73				
1517-22-2	Phenanthrene-d10	344729	10.2				
1719-03-5	Chrysene-d12	349159	12.83				
1520-96-3	Perylene-d12	323481	14.17				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	11.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064559.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	37.4	U	8.6	37.4	370	ug/Kg
95-48-7	2-Methylphenol	37.4	U	20.3	37.4	370	ug/Kg
65794-96-9	3+4-Methylphenols	37.4	U	19.4	37.4	370	ug/Kg
91-20-3	Naphthalene	37.4	U	12.9	37.4	370	ug/Kg
208-96-8	Acenaphthylene	37.4	U	9.4	37.4	370	ug/Kg
83-32-9	Acenaphthene	37.4	U	10.6	37.4	370	ug/Kg
132-64-9	Dibenzofuran	37.4	U	14.6	37.4	370	ug/Kg
86-73-7	Fluorene	37.4	U	14.2	37.4	370	ug/Kg
118-74-1	Hexachlorobenzene	37.4	U	15.3	37.4	370	ug/Kg
87-86-5	Pentachlorophenol	37.4	U	25.6	37.4	370	ug/Kg
85-01-8	Phenanthrene	37.4	U	10.1	37.4	370	ug/Kg
120-12-7	Anthracene	37.4	U	7.6	37.4	370	ug/Kg
206-44-0	Fluoranthene	37.4	U	7.5	37.4	370	ug/Kg
129-00-0	Pyrene	37.4	U	9	37.4	370	ug/Kg
56-55-3	Benzo(a)anthracene	37.4	U	17.9	37.4	370	ug/Kg
218-01-9	Chrysene	37.4	U	17	37.4	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	37.4	U	12.2	37.4	370	ug/Kg
207-08-9	Benzo(k)fluoranthene	37.4	U	17.6	37.4	370	ug/Kg
50-32-8	Benzo(a)pyrene	37.4	U	8.1	37.4	370	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	37.4	U	12.5	37.4	370	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	37.4	U	10.8	37.4	370	ug/Kg
191-24-2	Benzo(g,h,i)perylene	37.4	U	15.2	37.4	370	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	95.4		28 - 127		64%	SPK: 150
13127-88-3	Phenol-d6	81.5		34 - 127		54%	SPK: 150
4165-60-0	Nitrobenzene-d5	72.6		31 - 132		73%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.9		39 - 123		74%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		79%	SPK: 150
1718-51-0	Terphenyl-d14	67		37 - 115		67%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	85052	5.73				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	11.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064559.D	1	08/01/13	08/04/13	PB71414

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	322029	6.99				
15067-26-2	Acenaphthene-d10	182792	8.73				
1517-22-2	Phenanthrene-d10	371189	10.2				
1719-03-5	Chrysene-d12	369241	12.83				
1520-96-3	Perylene-d12	346207	14.17				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	5.8
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064655.D	1	08/07/13	08/12/13	PB71550

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.3	U	8.2	35.3	350	ug/Kg
95-48-7	2-Methylphenol	35.3	U	19.2	35.3	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.3	U	18.3	35.3	350	ug/Kg
91-20-3	Naphthalene	35.3	U	12.2	35.3	350	ug/Kg
208-96-8	Acenaphthylene	35.3	U	8.9	35.3	350	ug/Kg
83-32-9	Acenaphthene	35.3	U	10	35.3	350	ug/Kg
132-64-9	Dibenzofuran	35.3	U	13.8	35.3	350	ug/Kg
86-73-7	Fluorene	35.3	UQ	13.4	35.3	350	ug/Kg
118-74-1	Hexachlorobenzene	35.3	U	14.4	35.3	350	ug/Kg
87-86-5	Pentachlorophenol	35.3	U	24.2	35.3	350	ug/Kg
85-01-8	Phenanthrene	35.3	U	9.5	35.3	350	ug/Kg
120-12-7	Anthracene	35.3	U	7.2	35.3	350	ug/Kg
206-44-0	Fluoranthene	35.3	U	7.1	35.3	350	ug/Kg
129-00-0	Pyrene	35.3	U	8.5	35.3	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.3	U	16.9	35.3	350	ug/Kg
218-01-9	Chrysene	35.3	U	16	35.3	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.3	U	11.6	35.3	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.3	U	16.6	35.3	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.3	U	7.6	35.3	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.3	U	11.8	35.3	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.3	U	10.2	35.3	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.3	U	14.3	35.3	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	88.5		28 - 127		59%	SPK: 150
13127-88-3	Phenol-d6	99.9		34 - 127		67%	SPK: 150
4165-60-0	Nitrobenzene-d5	46.8		31 - 132		47%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.6		39 - 123		67%	SPK: 100
118-79-6	2,4,6-Tribromophenol	83.3		30 - 133		56%	SPK: 150
1718-51-0	Terphenyl-d14	52.2		37 - 115		52%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	202373	5.73				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	5.8
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF064655.D	1	08/07/13	08/12/13	PB71550

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	964735	6.97				
15067-26-2	Acenaphthene-d10	475609	8.69				
1517-22-2	Phenanthrene-d10	834035	10.17				
1719-03-5	Chrysene-d12	827586	12.77				
1520-96-3	Perylene-d12	764748	14.09				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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Surrogate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E3133-10	CS-C-03	2-Fluorophenol	150	97.80	65		25 ~~28~~	127 ~~121~~
		Phenol-d6	150	95.14	63		24 ~~34~~	127 ~~113~~
		Nitrobenzene-d5	100	71.62	72		23 ~~31~~	132 ~~120~~
		2-Fluorobiphenyl	100	79.66	80		30 ~~39~~	123 ~~115~~
		2,4,6-Tribromophenol	150	112.82	75		19 30	133 ~~122~~
		Terphenyl-d14	100	68.61	69		18 ~~37~~	115 ~~137~~
E3133-11	CS-C-04	2-Fluorophenol	150	95.46	64		28	127
		Phenol-d6	150	94.51	63		34	127
		Nitrobenzene-d5	100	71.64	72		31	132
		2-Fluorobiphenyl	100	78.83	79		39	123
		2,4,6-Tribromophenol	150	115.92	77		30	133
		Terphenyl-d14	100	67.17	67		37	115
E3133-12	CS-C-05	2-Fluorophenol	150	68.68	46		28	127
		Phenol-d6	150	78.54	52		34	127
		Nitrobenzene-d5	100	57.53	58		31	132
		2-Fluorobiphenyl	100	66.16	66		39	123
		2,4,6-Tribromophenol	150	80.22	53		30	133
		Terphenyl-d14	100	53.38	53		37	115
E3133-13	CS-C-05X	2-Fluorophenol	150	92.54	62		28	127
		Phenol-d6	150	81.06	54		34	127
		Nitrobenzene-d5	100	69.89	70		31	132
		2-Fluorobiphenyl	100	73.69	74		39	123
		2,4,6-Tribromophenol	150	109.33	73		30	133
		Terphenyl-d14	100	65.52	66		37	115
E3133-22	TS-C-02	2-Fluorophenol	150	97.89	65		28	127
		Phenol-d6	150	84.55	56		34	127
		Nitrobenzene-d5	100	67.44	67		31	132
		2-Fluorobiphenyl	100	76.64	77		39	123
		2,4,6-Tribromophenol	150	115.76	77		30	133
		Terphenyl-d14	100	67.01	67		37	115
E3133-23	TS-C-02X	2-Fluorophenol	150	95.44	64		28	127
		Phenol-d6	150	81.52	54		34	127
		Nitrobenzene-d5	100	72.55	73		31	132
		2-Fluorobiphenyl	100	73.89	74		39	123
		2,4,6-Tribromophenol	150	117.79	79		30	133
		Terphenyl-d14	100	67.00	67		37	115
E3133-23MS	TS-C-02XMS	2-Fluorophenol	150	84.79	57		28	127
		Phenol-d6	150	77.70	52		34	127
		Nitrobenzene-d5	100	62.97	63		31	132
		2-Fluorobiphenyl	100	61.40	61		39	123
		2,4,6-Tribromophenol	150	101.99	68		30	133
		Terphenyl-d14	100	60.31	60		37	115
E3133-23MSD	TS-C-02XMSD	2-Fluorophenol	150	90.44	60		28	127
		Phenol-d6	150	88.68	59		34	127
		Nitrobenzene-d5	100	72.37	72		31	132
		2-Fluorobiphenyl	100	70.28	70		39	123
		2,4,6-Tribromophenol	150	109.01	73		30	133
		Terphenyl-d14	100	67.53	68		37	115
PB71414BL	PB71414BL	2-Fluorophenol	150	113.05	75		28	127
		Phenol-d6	150	93.42	62		34	127
		Nitrobenzene-d5	100	73.81	74		31	132
		2-Fluorobiphenyl	100	82.00	82		39	123

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Surrogate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB71414BL	PB71414BL	2,4,6-Tribromophenol	150	117.82	79		30	133
		Terphenyl-d14	100	75.74	76		37	115
PB71414BS	PB71414BS	2-Fluorophenol	150	107.63	72		28	127
		Phenol-d6	150	92.89	62		34	127
		Nitrobenzene-d5	100	79.13	79		31	132
		2-Fluorobiphenyl	100	79.08	79		39	123
		2,4,6-Tribromophenol	150	124.54	83		30	133
		Terphenyl-d14	100	78.77	79		37	115

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Surrogate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E3133-27	CS-C-06	2-Fluorophenol	150	88.48	59		28	127
		Phenol-d6	150	99.94	67		34	127
		Nitrobenzene-d5	100	46.82	47		31	132
		2-Fluorobiphenyl	100	66.57	67		39	123
		2,4,6-Tribromophenol	150	83.28	56		30	133
		Terphenyl-d14	100	52.24	52		37	115
E3133-28MS	CS-C-06MS	2-Fluorophenol	150	122.39	82		28	127
		Phenol-d6	150	115.59	77		34	127
		Nitrobenzene-d5	100	84.26	84		31	132
		2-Fluorobiphenyl	100	89.05	89		39	123
		2,4,6-Tribromophenol	150	112.67	75		30	133
		Terphenyl-d14	100	64.05	64		37	115
E3133-29MSD	CS-C-06MSD	2-Fluorophenol	150	115.84	77		28	127
		Phenol-d6	150	109.40	73		34	127
		Nitrobenzene-d5	100	83.68	84		31	132
		2-Fluorobiphenyl	100	100.15	100		39	123
		2,4,6-Tribromophenol	150	120.05	80		30	133
		Terphenyl-d14	100	65.11	65		37	115
PB71550BL	PB71550BL	2-Fluorophenol	150	124.25	83		28	127
		Phenol-d6	150	126.19	84		34	127
		Nitrobenzene-d5	100	62.81	63		31	132
		2-Fluorobiphenyl	100	87.72	88		39	123
		2,4,6-Tribromophenol	150	100.92	67		30	133
		Terphenyl-d14	100	76.65	77		37	115
PB71550BS	PB71550BS	2-Fluorophenol	150	144.36	96		28	127
		Phenol-d6	150	128.84	86		34	127
		Nitrobenzene-d5	100	90.85	91		31	132
		2-Fluorobiphenyl	100	133.89	134	*	39	123
		2,4,6-Tribromophenol	150	173.47	116		30	133
		Terphenyl-d14	100	89.25	89		37	115

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: E3133-23MS	**Client Sample ID:**		**TS-C-02XMS**				**DataFile:**	**BF064560.D**			
Phenol	1900	0	850	ug/Kg	45	✓			40	115	90
2-Methylphenol	1900	0	1200	ug/Kg	63				48	111	
3+4-Methylphenols	1900	0	1200	ug/Kg	63				46	115	
Naphthalene	1900	0	1200	ug/Kg	63				42	121	
Acenaphthylene	1900	0	1100	ug/Kg	58				45	117	
Acenaphthene	1900	0	1200	ug/Kg	63				45	118	137
Dibenzofuran	1900	0	1100	ug/Kg	58				45	118	
Fluorene	1900	0	1200	ug/Kg	63				41	121	
Hexachlorobenzene	1900	0	1200	ug/Kg	63				48	114	
Pentachlorophenol	3700	0	1900	ug/Kg	51				15	145	109
Phenanthrene	1900	0	1200	ug/Kg	63				29	138	
Anthracene	1900	0	1100	ug/Kg	58				45	120	
Fluoranthene	1900	0	1100	ug/Kg	58				33	133	
Pyrene	1900	0	1200	ug/Kg	63				31	135	142
Benzo(a)anthracene	1900	0	1100	ug/Kg	58				35	132	
Chrysene	1900	0	1300	ug/Kg	68				34	131	
Benzo(b)fluoranthene	1900	0	910	ug/Kg	48				35	128	
Benzo(k)fluoranthene	1900	0	1500	ug/Kg	79				39	117	
Benzo(a)pyrene	1900	0	1200	ug/Kg	63				35	129	
Indeno(1,2,3-cd)pyrene	1900	0	1100	ug/Kg	58				30	140	
Dibenz(a,h)anthracene	1900	0	1100	ug/Kg	58				18	147	
Benzo(g,h,i)perylene	1900	0	1100	ug/Kg	58				31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: E3133-23MSD	**Client Sample ID: TS-C-02XMSD**						**DataFile: BF064561.D**				
Phenol	1900	0	950	ug/Kg	50		11		40	115	20
2-Methylphenol	1900	0	1300	ug/Kg	68		8		48	111	20
3+4-Methylphenols	1900	0	1300	ug/Kg	68		8		46	115	20
Naphthalene	1900	0	1300	ug/Kg	68		8		42	121	20
Acenaphthylene	1900	0	1300	ug/Kg	68		16		45	117	20
Acenaphthene	1900	0	1300	ug/Kg	68		8		45	118	20
Dibenzofuran	1900	0	1300	ug/Kg	68		16		45	118	20
Fluorene	1900	0	1400	ug/Kg	74		16		41	121	20
Hexachlorobenzene	1900	0	1300	ug/Kg	68		8		48	114	20
Pentachlorophenol	3700	0	1900	ug/Kg	51		0		15	145	20
Phenanthrene	1900	0	1300	ug/Kg	68		8		29	138	20
Anthracene	1900	0	1300	ug/Kg	68		16		45	120	20
Fluoranthene	1900	0	1300	ug/Kg	68		16		33	133	20
Pyrene	1900	0	1400	ug/Kg	74		16		31	135	20
Benzo(a)anthracene	1900	0	1300	ug/Kg	68		16		35	132	20
Chrysene	1900	0	1600	ug/Kg	84		21	*	34	131	20
Benzo(b)fluoranthene	1900	0	1000	ug/Kg	53		10		35	128	20
Benzo(k)fluoranthene	1900	0	1700	ug/Kg	89		12		39	117	20
Benzo(a)pyrene	1900	0	1400	ug/Kg	74		16		35	129	20
Indeno(1,2,3-cd)pyrene	1900	0	1200	ug/Kg	63		8		30	140	20
Dibenz(a,h)anthracene	1900	0	1200	ug/Kg	63		8		18	147	20
Benzo(g,h,i)perylene	1900	0	1200	ug/Kg	63		8		31	132	20

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E3133-28MS	**Client Sample ID:**		**CS-C-06MS**				**DataFile:**	**BF064656.D**			
Phenol	1800	0	1600	ug/Kg	89				40	115	
2-Methylphenol	1800	0	1400	ug/Kg	78				48	111	
3+4-Methylphenols	1800	0	1300	ug/Kg	72				46	115	
Naphthalene	1800	0	1400	ug/Kg	78				42	121	
Acenaphthylene	1800	0	1300	ug/Kg	72				45	117	
Acenaphthene	1800	0	1200	ug/Kg	67				45	118	
Dibenzofuran	1800	0	1300	ug/Kg	72				45	118	
Fluorene	1800	0	1500	ug/Kg	83				41	121	
Hexachlorobenzene	1800	0	1400	ug/Kg	78				48	114	
Pentachlorophenol	3500	0	1700	ug/Kg	49				15	145	
Phenanthrene	1800	0	1400	ug/Kg	78				29	138	
Anthracene	1800	0	1200	ug/Kg	67				45	120	
Fluoranthene	1800	0	1400	ug/Kg	78				33	133	
Pyrene	1800	0	1200	ug/Kg	67				31	135	
Benzo(a)anthracene	1800	0	1300	ug/Kg	72				35	132	
Chrysene	1800	0	1100	ug/Kg	61				34	131	
Benzo(b)fluoranthene	1800	0	1600	ug/Kg	89				35	128	
Benzo(k)fluoranthene	1800	0	1200	ug/Kg	67				39	117	
Benzo(a)pyrene	1800	0	1300	ug/Kg	72				35	129	
Indeno(1,2,3-cd)pyrene	1800	0	1300	ug/Kg	72				30	140	
Dibenz(a,h)anthracene	1800	0	1400	ug/Kg	78				18	147	
Benzo(g,h,i)perylene	1800	0	1400	ug/Kg	78				31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: E3133-29MSD	**Client Sample ID:**		**CS-C-06MSD**				**DataFile:**		**BF064657.D**		
Phenol	1800	0	1500	ug/Kg	83		7		40	115	20
2-Methylphenol	1800	0	1300	ug/Kg	72		8		48	111	20
3+4-Methylphenols	1800	0	1300	ug/Kg	72		0		46	115	20
Naphthalene	1800	0	1400	ug/Kg	78		0		42	121	20
Acenaphthylene	1800	0	1300	ug/Kg	72		0		45	117	20
Acenaphthene	1800	0	1200	ug/Kg	67		0		45	118	20
Dibenzofuran	1800	0	1300	ug/Kg	72		0		45	118	20
Fluorene	1800	0	1500	ug/Kg	83		0		41	121	20
Hexachlorobenzene	1800	0	1500	ug/Kg	83		6		48	114	20
Pentachlorophenol	3500	0	1300	ug/Kg	37		28	*	15	145	20
Phenanthrene	1800	0	1500	ug/Kg	83		6		29	138	20
Anthracene	1800	0	1300	ug/Kg	72		7		45	120	20
Fluoranthene	1800	0	1500	ug/Kg	83		6		33	133	20
Pyrene	1800	0	1200	ug/Kg	67		0		31	135	20
Benzo(a)anthracene	1800	0	1300	ug/Kg	72		0		35	132	20
Chrysene	1800	0	1200	ug/Kg	67		9		34	131	20
Benzo(b)fluoranthene	1800	0	1800	ug/Kg	100		12		35	128	20
Benzo(k)fluoranthene	1800	0	1200	ug/Kg	67		0		39	117	20
Benzo(a)pyrene	1800	0	1300	ug/Kg	72		0		35	129	20
Indeno(1,2,3-cd)pyrene	1800	0	1300	ug/Kg	72		0		30	140	20
Dibenz(a,h)anthracene	1800	0	1400	ug/Kg	78		0		18	147	20
Benzo(g,h,i)perylene	1800	0	1400	ug/Kg	78		0		31	132	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF064505.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Limits Qual	Low	High	RPD
PB71414BS	Phenol	1700	960	ug/Kg	56				51	101	
	2-Methylphenol	1700	1300	ug/Kg	76				49	105	
	3+4-Methylphenols	1700	1200	ug/Kg	71				52	102	
	Naphthalene	1700	1300	ug/Kg	76				53	103	
	Acenaphthylene	1700	1300	ug/Kg	76				57	101	
	Acenaphthene	1700	1400	ug/Kg	82				57	102	
	Dibenzofuran	1700	1300	ug/Kg	76				57	100	
	Fluorene	1700	1400	ug/Kg	82				57	101	
	Hexachlorobenzene	1700	1400	ug/Kg	82				54	106	
	Pentachlorophenol	3300	2600	ug/Kg	79				49	116	
	Phenanthrene	1700	1400	ug/Kg	82				58	101	
	Anthracene	1700	1400	ug/Kg	82				57	102	
	Fluoranthene	1700	1400	ug/Kg	82				56	102	
	Pyrene	1700	1400	ug/Kg	82				56	106	
	Benzo(a)anthracene	1700	1400	ug/Kg	82				56	103	
	Chrysene	1700	1300	ug/Kg	76				58	102	
	Benzo(b)fluoranthene	1700	1500	ug/Kg	88				56	103	
	Benzo(k)fluoranthene	1700	1200	ug/Kg	71				55	102	
	Benzo(a)pyrene	1700	1400	ug/Kg	82				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82				50	113	
	Dibenz(a,h)anthracene	1700	1300	ug/Kg	76				52	119	
	Benzo(g,h,i)perylene	1700	1300	ug/Kg	76				56	105	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF064702.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71550BS	Phenol	1700	1200	ug/Kg	71				51	101	
	2-Methylphenol	1700	1500	ug/Kg	88				49	105	
	3+4-Methylphenols	1700	1600	ug/Kg	94				52	102	
	Naphthalene	1700	1600	ug/Kg	94				53	103	
	Acenaphthylene	1700	1600	ug/Kg	94				57	101	
	Acenaphthene	1700	1600	ug/Kg	94				57	102	
	Dibenzofuran	1700	1700	ug/Kg	100				57	100	
	Fluorene	1700	1800	ug/Kg	106		*		57	101	
	Hexachlorobenzene	1700	1800	ug/Kg	106				54	106	
	Pentachlorophenol	3300	2500	ug/Kg	76				49	116	
	Phenanthrene	1700	1700	ug/Kg	100				58	101	
	Anthracene	1700	1600	ug/Kg	94				57	102	
	Fluoranthene	1700	1600	ug/Kg	94				56	102	
	Pyrene	1700	1600	ug/Kg	94				56	106	
	Benzo(a)anthracene	1700	1600	ug/Kg	94				56	103	
	Chrysene	1700	1600	ug/Kg	94				58	102	
	Benzo(b)fluoranthene	1700	1500	ug/Kg	88				56	103	
	Benzo(k)fluoranthene	1700	1500	ug/Kg	88				55	102	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1600	ug/Kg	94				50	113	
	Dibenz(a,h)anthracene	1700	1600	ug/Kg	94				52	119	
	Benzo(g,h,i)perylene	1700	1600	ug/Kg	94				56	105	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71414BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064504.D Lab Sample ID: PB71414BL

Instrument ID: BNA_F Date Extracted: 08/01/2013

Matrix: (soil/water) SOIL Date Analyzed: 08/01/2013

Level: (low/med) LOW Time Analyzed: 21:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB71414BS	PB71414BS	BF064505.D	08/01/2013
CS-C-05	E3133-12	BF064510.D	08/02/2013
CS-C-05X	E3133-13	BF064549.D	08/04/2013
TS-C-02	E3133-22	BF064550.D	08/04/2013
TS-C-02X	E3133-23	BF064559.D	08/04/2013
TS-C-02XMS	E3133-23MS	BF064560.D	08/04/2013
TS-C-02XMSD	E3133-23MSD	BF064561.D	08/04/2013
CS-C-03	E3133-10	BF064508.D	08/01/2013
CS-C-04	E3133-11	BF064509.D	08/01/2013

COMMENTS:

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71550BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064701.D Lab Sample ID: PB71550BL

Instrument ID: BNA_F Date Extracted: 08/07/2013

Matrix: (soil/water) SOIL Date Analyzed: 08/13/2013

Level: (low/med) LOW Time Analyzed: 23:07

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB71550BS	PB71550BS	BF064702.D	08/13/2013
CS-C-06	E3133-27	BF064655.D	08/12/2013
CS-C-06MS	E3133-28MS	BF064656.D	08/12/2013
CS-C-06MSD	E3133-29MSD	BF064657.D	08/12/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064455.D DFTPP Injection Date: 07/31/2013

Instrument ID: BNA_F DFTPP Injection Time: 14:52

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.7
68	Less than 2.0% of mass 69	0.6 (1.9) 1
69	Mass 69 relative abundance	29
70	Less than 2.0% of mass 69	0.2 (0.8) 1
127	10.0 - 80.0% of mass 198	45
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	24.5
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	15.1
442	Greater than 50% of mass 198	95.6
443	15.0 - 24.0% of mass 442	17.9 (18.8) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICCC040	SSTDICCC040	BF064456.D	07/31/2013	15:19
SSTDICC010	SSTDICC010	BF064457.D	07/31/2013	15:52
SSTDICC025	SSTDICC025	BF064458.D	07/31/2013	16:19
SSTDICC050	SSTDICC050	BF064459.D	07/31/2013	16:46
SSTDICC060	SSTDICC060	BF064460.D	07/31/2013	17:13
SSTDICC080	SSTDICC080	BF064461.D	07/31/2013	17:41

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064500.D DFTPP Injection Date: 08/01/2013

Instrument ID: BNA_F DFTPP Injection Time: 19:10

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.2
68	Less than 2.0% of mass 69	0.4 (1.4) 1
69	Mass 69 relative abundance	30.4
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	44.9
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	24.3
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	14.1
442	Greater than 50% of mass 198	93.7
443	15.0 - 24.0% of mass 442	18.7 (20) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064501.D	08/01/2013	20:05
PB71414BL	PB71414BL	BF064504.D	08/01/2013	21:27
PB71414BS	PB71414BS	BF064505.D	08/01/2013	21:55
CS-C-03	E3133-10	BF064508.D	08/01/2013	23:17
CS-C-04	E3133-11	BF064509.D	08/01/2013	23:44
CS-C-05	E3133-12	BF064510.D	08/02/2013	00:11

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064542.D DFTPP Injection Date: 08/04/2013

Instrument ID: BNA_F DFTPP Injection Time: 13:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.7
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	32.8
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	45.2
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.1
275	10.0 - 60.0% of mass 198	23.1
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	15.1
442	Greater than 50% of mass 198	92.8
443	15.0 - 24.0% of mass 442	17.5 (18.8) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064543.D	08/04/2013	14:45
CS-C-05X	E3133-13	BF064549.D	08/04/2013	17:26
TS-C-02	E3133-22	BF064550.D	08/04/2013	17:53
TS-C-02X	E3133-23	BF064559.D	08/04/2013	21:55
TS-C-02XMS	E3133-23MS	BF064560.D	08/04/2013	22:22
TS-C-02XMSD	E3133-23MSD	BF064561.D	08/04/2013	22:49

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064640.D DFTPP Injection Date: 08/12/2013

Instrument ID: BNA_F DFTPP Injection Time: 14:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46
68	Less than 2.0% of mass 69	0.1 (0.1) 1
69	Mass 69 relative abundance	37.1
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	51.8
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 60.0% of mass 198	23
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	11.9
442	Greater than 50% of mass 198	75.1
443	15.0 - 24.0% of mass 442	14.2 (19) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC010	SSTDICC010	BF064641.D	08/12/2013	15:02
SSTDICC025	SSTDICC025	BF064642.D	08/12/2013	15:29
SSTDICCC040	SSTDICCC040	BF064643.D	08/12/2013	15:56
SSTDICC050	SSTDICC050	BF064644.D	08/12/2013	16:23
SSTDICC060	SSTDICC060	BF064645.D	08/12/2013	16:50
SSTDICC080	SSTDICC080	BF064646.D	08/12/2013	17:17
CS-C-06	E3133-27	BF064655.D	08/12/2013	21:52
CS-C-06MS	E3133-28MS	BF064656.D	08/12/2013	22:19
CS-C-06MSD	E3133-29MSD	BF064657.D	08/12/2013	22:47

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3133 SDG NO.: E3133

Lab File ID: BF064690.D DFTPP Injection Date: 08/13/2013

Instrument ID: BNA_F DFTPP Injection Time: 17:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.2
68	Less than 2.0% of mass 69	0.5 (1.5) 1
69	Mass 69 relative abundance	33.8
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	47.5
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 60.0% of mass 198	25.2
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	12.4
442	Greater than 50% of mass 198	76.5
443	15.0 - 24.0% of mass 442	15.4 (20.1) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF064691.D	08/13/2013	18:29
PB71550BL	PB71550BL	BF064701.D	08/13/2013	23:07
PB71550BS	PB71550BS	BF064702.D	08/13/2013	23:35

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/01/2013

Lab File ID: BF064501.D Time Analyzed: 20:05

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	73084	5.74	312873	7.00	175935	8.74
	UPPER LIMIT	146168	6.24	625746	7.5	351870	9.24
	LOWER LIMIT	36542	5.24	156437	6.5	87967.5	8.24
	EPA SAMPLE NO.						
01	CS-C-03	86912	5.74	328473	6.99	182549	8.74
02	CS-C-04	88241	5.74	330816	6.99	180298	8.74
03	CS-C-05	87380	5.74	325042	6.99	172469	8.73
04	PB71414BL	87823	5.74	335818	6.99	183171	8.74
05	PB71414BS	89790	5.74	352116	7	197554	8.74

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/01/2013

Lab File ID: BF064501.D Time Analyzed: 20:05

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	304688	10.21	327967	12.85	323615	14.18
	UPPER LIMIT	609376	10.71	655934	13.35	647230	14.68
	LOWER LIMIT	152344	9.71	163984	12.35	161808	13.68
	EPA SAMPLE NO.						
01	CS-C-03	347672	10.21	372232	12.84	359446	14.18
02	CS-C-04	347753	10.21	365209	12.84	355450	14.18
03	CS-C-05	329053	10.21	344366	12.84	341579	14.18
04	PB71414BL	353310	10.21	354991	12.84	359274	14.18
05	PB71414BS	369518	10.21	354536	12.85	369424	14.18

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/04/2013

Lab File ID: BF064543.D Time Analyzed: 14:45

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	72432	5.73	297983	6.99	168856	8.73
	UPPER LIMIT	144864	6.23	595966	7.49	337712	9.23
	LOWER LIMIT	36216	5.23	148992	6.49	84428	8.23
	EPA SAMPLE NO.						
01	CS-C-05X	83729	5.73	316779	6.99	182017	8.73
02	TS-C-02	78021	5.73	309524	6.99	164784	8.73
03	TS-C-02X	85052	5.73	322029	6.99	182792	8.73
04	TS-C-02XMS	77340	5.73	315060	6.99	182559	8.73
05	TS-C-02XMSD	80667	5.73	336367	6.99	192938	8.73

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/04/2013

Lab File ID: BF064543.D Time Analyzed: 14:45

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	327161	10.2	302053	12.84	303410	14.17
	UPPER LIMIT	654322	10.7	604106	13.34	606820	14.67
	LOWER LIMIT	163581	9.7	151027	12.34	151705	13.67
	EPA SAMPLE NO.						
01	CS-C-05X	366281	10.20	372772	12.83	353856	14.17
02	TS-C-02	344729	10.20	349159	12.83	323481	14.17
03	TS-C-02X	371189	10.20	369241	12.83	346207	14.17
04	TS-C-02XMS	365783	10.20	329822	12.83	322828	14.17
05	TS-C-02XMSD	380340	10.20	341391	12.83	334745	14.17

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDICCC040 Date Analyzed: 08/12/2013

Lab File ID: BF064643.D Time Analyzed: 15:56

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	270467	5.73	1052880	6.98	601852	8.70
	UPPER LIMIT	540934	6.23	2105760	7.48	1203700	9.2
	LOWER LIMIT	135234	5.23	526440	6.48	300926	8.2
	EPA SAMPLE NO.		✓		✓		✓
01	CS-C-06	202373	5.73	964735	6.97	475609	8.69
02	CS-C-06MS	203731	5.73	882200	6.97	492698	8.7
03	CS-C-06MSD	208316	5.73	861146	6.97	462464	8.7

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDICCC040 Date Analyzed: 08/12/2013

Lab File ID: BF064643.D Time Analyzed: 15:56

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	985248	10.17	963350	12.79	900167	14.1
	UPPER LIMIT	1970500	10.67	1926700	13.29	1800330	14.6
	LOWER LIMIT	492624	9.67	481675	12.29	450084	13.6
	EPA SAMPLE NO.						
01	CS-C-06	834035	10.17	827586	12.77	764748	14.09
02	CS-C-06MS	860903	10.17	803664	12.78	730052	14.09
03	CS-C-06MSD	797749	10.17	814488	12.78	710587	14.09

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/13/2013

Lab File ID: BF064691.D Time Analyzed: 18:29

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	114365	5.7	479400	6.93	257298	8.67
	UPPER LIMIT	228730	6.2	958800	7.43	514596	9.17
	LOWER LIMIT	57182.5	5.2	239700	6.43	128649	8.17
	EPA SAMPLE NO.						
01	PB71550BL	161305	5.69	755957	6.93	385294	8.66
02	PB71550BS	155159	5.69	727912	6.93	359574	8.66

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/13/2013

Lab File ID: BF064691.D Time Analyzed: 18:29

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	466520	10.13	422605	12.75	377931	14.05
	UPPER LIMIT	933040	10.63	845210	13.25	755862	14.55
	LOWER LIMIT	233260	9.63	211303	12.25	188966	13.55
	EPA SAMPLE NO.						
01	PB71550BL	623644	10.12	653030	12.74	579049	14.05
02	PB71550BS	634706	10.12	603277	12.74	593702	14.05

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	3.6 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004679.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.342	U	0.135	0.342	1.8	ug/kg
319-85-7	beta-BHC	0.342	U	0.186	0.342	1.8	ug/kg
319-86-8	delta-BHC	0.342	U	0.103	0.342	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.342	U	0.155	0.342	1.8	ug/kg
76-44-8	Heptachlor	0.342	U	0.145	0.342	1.8	ug/kg
309-00-2	Aldrin	0.342	U	0.103	0.342	1.8	ug/kg
959-98-8	Endosulfan I	0.342	U	0.155	0.342	1.8	ug/kg
60-57-1	Dieldrin	0.342	U	0.135	0.342	1.8	ug/kg
72-55-9	4,4-DDE	0.342	U	0.207	0.342	1.8	ug/kg
72-20-8	Endrin	0.342	U	0.186	0.342	1.8	ug/kg
33213-65-9	Endosulfan II	0.342	U	0.145	0.342	1.8	ug/kg
72-54-8	4,4-DDD	0.342	U	0.176	0.342	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.342	U J	0.155	0.342	1.8	ug/kg
50-29-3	4,4-DDT	0.342	U	0.145	0.342	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.342	U	0.145	0.342	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	21.1		10 - 169		105%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20		31 - 151		100%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	6.5 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group I
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004680.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.352	U	0.139	0.352	1.8	ug/kg
319-85-7	beta-BHC	0.352	U	0.192	0.352	1.8	ug/kg
319-86-8	delta-BHC	0.352	U	0.107	0.352	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.352	U	0.16	0.352	1.8	ug/kg
76-44-8	Heptachlor	0.352	U	0.149	0.352	1.8	ug/kg
309-00-2	Aldrin	0.352	U	0.107	0.352	1.8	ug/kg
959-98-8	Endosulfan I	0.352	U	0.16	0.352	1.8	ug/kg
60-57-1	Dieldrin	0.352	U	0.139	0.352	1.8	ug/kg
72-55-9	4,4-DDE	0.352	U	0.213	0.352	1.8	ug/kg
72-20-8	Endrin	0.352	U	0.192	0.352	1.8	ug/kg
33213-65-9	Endosulfan II	0.352	U	0.149	0.352	1.8	ug/kg
72-54-8	4,4-DDD	0.352	U	0.181	0.352	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.352	UVJ	0.16	0.352	1.8	ug/kg
50-29-3	4,4-DDT	0.352	U	0.149	0.352	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.352	U	0.149	0.352	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	18.3		10 - 169		92%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.8		31 - 151		104%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group I
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004681.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.35	U	0.138	0.35	1.8	ug/kg
319-85-7	beta-BHC	0.35	U	0.191	0.35	1.8	ug/kg
319-86-8	delta-BHC	0.35	U	0.106	0.35	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.35	U	0.159	0.35	1.8	ug/kg
76-44-8	Heptachlor	0.35	U	0.148	0.35	1.8	ug/kg
309-00-2	Aldrin	0.35	U	0.106	0.35	1.8	ug/kg
959-98-8	Endosulfan I	0.35	U	0.159	0.35	1.8	ug/kg
60-57-1	Dieldrin	0.35	U	0.138	0.35	1.8	ug/kg
72-55-9	4,4-DDE	0.35	U	0.212	0.35	1.8	ug/kg
72-20-8	Endrin	0.35	U	0.191	0.35	1.8	ug/kg
33213-65-9	Endosulfan II	0.35	U	0.148	0.35	1.8	ug/kg
72-54-8	4,4-DDD	0.35	U	0.18	0.35	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.35	U J	0.159	0.35	1.8	ug/kg
50-29-3	4,4-DDT	0.35	U	0.148	0.35	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.35	U	0.148	0.35	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	20.3		10 - 169		101%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.4		31 - 151		102%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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E = Value Exceeds Calibration Range
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004682.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.35	U	0.138	0.35	1.8	ug/kg
319-85-7	beta-BHC	0.35	U	0.191	0.35	1.8	ug/kg
319-86-8	delta-BHC	0.35	U	0.106	0.35	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.35	U	0.159	0.35	1.8	ug/kg
76-44-8	Heptachlor	0.35	U	0.149	0.35	1.8	ug/kg
309-00-2	Aldrin	0.35	U	0.106	0.35	1.8	ug/kg
959-98-8	Endosulfan I	0.35	U	0.159	0.35	1.8	ug/kg
60-57-1	Dieldrin	0.35	U	0.138	0.35	1.8	ug/kg
72-55-9	4,4-DDE	0.35	U	0.212	0.35	1.8	ug/kg
72-20-8	Endrin	0.35	U	0.191	0.35	1.8	ug/kg
33213-65-9	Endosulfan II	0.35	U	0.149	0.35	1.8	ug/kg
72-54-8	4,4-DDD	0.35	U	0.181	0.35	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.35	UJ	0.159	0.35	1.8	ug/kg
50-29-3	4,4-DDT	0.35	U	0.149	0.35	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.35	U	0.149	0.35	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	20.4		10 - 169		102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21		31 - 151		105%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	10.7 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004683.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.369	U	0.145	0.369	1.9	ug/kg
319-85-7	beta-BHC	0.369	U	0.201	0.369	1.9	ug/kg
319-86-8	delta-BHC	0.369	U	0.112	0.369	1.9	ug/kg
58-89-9	gamma-BHC (Lindane)	0.369	U	0.168	0.369	1.9	ug/kg
76-44-8	Heptachlor	0.369	U	0.157	0.369	1.9	ug/kg
309-00-2	Aldrin	0.369	U	0.112	0.369	1.9	ug/kg
959-98-8	Endosulfan I	0.369	U	0.168	0.369	1.9	ug/kg
60-57-1	Dieldrin	0.369	U	0.145	0.369	1.9	ug/kg
72-55-9	4,4-DDE	0.369	U	0.224	0.369	1.9	ug/kg
72-20-8	Endrin	0.369	U	0.201	0.369	1.9	ug/kg
33213-65-9	Endosulfan II	0.369	U	0.157	0.369	1.9	ug/kg
72-54-8	4,4-DDD	0.369	U	0.19	0.369	1.9	ug/kg
1031-07-8	Endosulfan Sulfate	0.369	U	0.168	0.369	1.9	ug/kg
50-29-3	4,4-DDT	0.369	U	0.157	0.369	1.9	ug/kg
5103-71-9	alpha-Chlordane	0.369	U	0.157	0.369	1.9	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	18.7		10 - 169		94%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.7		31 - 151		103%	SPK: 20

U = Not Detected
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MDL = Method Detection Limit
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	11.1 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004684.D	1	08/01/13	08/01/13	PB71413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.371	U	0.146	0.371	1.9	ug/kg
319-85-7	beta-BHC	0.371	U	0.202	0.371	1.9	ug/kg
319-86-8	delta-BHC	0.371	U	0.112	0.371	1.9	ug/kg
58-89-9	gamma-BHC (Lindane)	0.371	U	0.169	0.371	1.9	ug/kg
76-44-8	Heptachlor	0.371	U	0.157	0.371	1.9	ug/kg
309-00-2	Aldrin	0.371	U	0.112	0.371	1.9	ug/kg
959-98-8	Endosulfan I	0.371	U	0.169	0.371	1.9	ug/kg
60-57-1	Dieldrin	0.371	U	0.146	0.371	1.9	ug/kg
72-55-9	4,4-DDE	0.371	U	0.225	0.371	1.9	ug/kg
72-20-8	Endrin	0.371	U	0.202	0.371	1.9	ug/kg
33213-65-9	Endosulfan II	0.371	U	0.157	0.371	1.9	ug/kg
72-54-8	4,4-DDD	0.371	U	0.191	0.371	1.9	ug/kg
1031-07-8	Endosulfan Sulfate	0.371	U	0.169	0.371	1.9	ug/kg
50-29-3	4,4-DDT	0.371	U	0.157	0.371	1.9	ug/kg
5103-71-9	alpha-Chlordane	0.371	U	0.157	0.371	1.9	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	18.3		10 - 169		91%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.4		31 - 151		92%	SPK: 20

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	5.8 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL004830.D	1	08/07/13	08/08/13	PB71549

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.35	U	0.138	0.35	1.8	ug/kg
319-85-7	beta-BHC	0.35	U	0.191	0.35	1.8	ug/kg
319-86-8	delta-BHC	0.35	U	0.106	0.35	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.35	U	0.159	0.35	1.8	ug/kg
76-44-8	Heptachlor	0.35	U	0.148	0.35	1.8	ug/kg
309-00-2	Aldrin	0.35	U	0.106	0.35	1.8	ug/kg
959-98-8	Endosulfan I	0.35	U	0.159	0.35	1.8	ug/kg
60-57-1	Dieldrin	0.35	U	0.138	0.35	1.8	ug/kg
72-55-9	4,4-DDE	0.35	U	0.212	0.35	1.8	ug/kg
72-20-8	Endrin	0.35	U	0.191	0.35	1.8	ug/kg
33213-65-9	Endosulfan II	0.35	U	0.148	0.35	1.8	ug/kg
72-54-8	4,4-DDD	0.35	U	0.18	0.35	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.35	U	0.159	0.35	1.8	ug/kg
50-29-3	4,4-DDT	0.35	U	0.148	0.35	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.35	U	0.148	0.35	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	20.8		10 - 169		104%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.7		31 - 151		104%	SPK: 20

U = Not Detected
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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PL004662.D	PIBLK-PL004662.D	Decachlorobiphenyl	1	20	19.56	98		10	192
		Tetrachloro-m-xylene	1	20	19.52	98		10	172
		Decachlorobiphenyl	2	20	19.25	96		10	192
		Tetrachloro-m-xylene	2	20	19.41	97		10	172
I.BLK-PL004675.D	PIBLK-PL004675.D	Decachlorobiphenyl	1	20	20.6	103		10	192
		Tetrachloro-m-xylene	1	20	20.19	101		10	172
		Decachlorobiphenyl	2	20	20.91	105		10	192
		Tetrachloro-m-xylene	2	20	20.91	105		10	172
PB71413BL	PB71413BL	Decachlorobiphenyl	1	20	18.73	94		10	169
		Tetrachloro-m-xylene	1	20	18.13	91		31	151
		Decachlorobiphenyl	2	20	18.58	93		10	169
		Tetrachloro-m-xylene	2	20	18.64	93		31	151
PB71413BS	PB71413BS	Decachlorobiphenyl	1	20	17	85		10	169
		Tetrachloro-m-xylene	1	20	18.16	91		31	151
		Decachlorobiphenyl	2	20	18.37	92		10	169
		Tetrachloro-m-xylene	2	20	18.07	90		31	151
E3133-10	CS-C-03	Decachlorobiphenyl	1	20	21.09	105		10	169
		Tetrachloro-m-xylene	1	20	20.03	100		31	151
		Decachlorobiphenyl	2	20	20.46	102		10	169
		Tetrachloro-m-xylene	2	20	20.73	104		31	151
E3133-11	CS-C-04	Decachlorobiphenyl	1	20	18.34	92		10	169
		Tetrachloro-m-xylene	1	20	20.77	104		31	151
		Decachlorobiphenyl	2	20	17.87	89		10	169
		Tetrachloro-m-xylene	2	20	20.2	101		31	151
E3133-12	CS-C-05	Decachlorobiphenyl	1	20	20.28	101		10	169
		Tetrachloro-m-xylene	1	20	20.41	102		31	151
		Decachlorobiphenyl	2	20	19.99	100		10	169
		Tetrachloro-m-xylene	2	20	20.94	105		31	151
E3133-13	CS-C-05X	Decachlorobiphenyl	1	20	20.43	102		10	169
		Tetrachloro-m-xylene	1	20	20.97	105		31	151
		Decachlorobiphenyl	2	20	20.25	101		10	169
		Tetrachloro-m-xylene	2	20	21.59	108		31	151
E3133-22	TS-C-02	Decachlorobiphenyl	1	20	18.7	94		10	169
		Tetrachloro-m-xylene	1	20	20.69	103		31	151
		Decachlorobiphenyl	2	20	18.46	92		10	169
		Tetrachloro-m-xylene	2	20	21.14	106		31	151
E3133-23	TS-C-02X	Decachlorobiphenyl	1	20	18.28	91		10	169
		Tetrachloro-m-xylene	1	20	18.42	92		31	151
		Decachlorobiphenyl	2	20	18.34	92		10	169
		Tetrachloro-m-xylene	2	20	20.96	105		31	151
E3133-22MS	TS-C-02MS	Decachlorobiphenyl	1	20	19.37	97		10	169
		Tetrachloro-m-xylene	1	20	20.86	104		31	151
		Decachlorobiphenyl	2	20	19.17	96		10	169

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3133-22MS	TS-C-02MS	Tetrachloro-m-xylene	2	20	20.85	104		31	151
E3133-22MSD	TS-C-02MSD	Decachlorobiphenyl	1	20	19.17	96		10	169
		Tetrachloro-m-xylene	1	20	20.7	104		31	151
		Decachlorobiphenyl	2	20	19.23	96		10	169
		Tetrachloro-m-xylene	2	20	21.36	107		31	151
I.BLK-PL004687.D	PIBLK-PL004687.D	Decachlorobiphenyl	1	20	20.94	105		10	192
		Tetrachloro-m-xylene	1	20	20.16	101		10	172
		Decachlorobiphenyl	2	20	20.73	104		10	192
		Tetrachloro-m-xylene	2	20	21.54	108		10	172
I.BLK-PL004825.D	PIBLK-PL004825.D	Decachlorobiphenyl	1	20	18.99	95		10	192
		Tetrachloro-m-xylene	1	20	19.52	98		10	172
		Decachlorobiphenyl	2	20	18.76	94		10	192
		Tetrachloro-m-xylene	2	20	21.5	108		10	172
PB71549BL	PB71549BL	Decachlorobiphenyl	1	20	18.46	92		10	169
		Tetrachloro-m-xylene	1	20	20.83	104		31	151
		Decachlorobiphenyl	2	20	17.94	90		10	169
		Tetrachloro-m-xylene	2	20	20.25	101		31	151
371549BS	PB71549BS	Decachlorobiphenyl	1	20	19.37	97		10	169
		Tetrachloro-m-xylene	1	20	19.17	96		31	151
		Decachlorobiphenyl	2	20	18.54	93		10	169
		Tetrachloro-m-xylene	2	20	21.13	106		31	151
E3133-27	CS-C-06	Decachlorobiphenyl	1	20	20.76	104		10	169
		Tetrachloro-m-xylene	1	20	20.72	104		31	151
		Decachlorobiphenyl	2	20	20.12	101		10	169
		Tetrachloro-m-xylene	2	20	23.83	119		31	151
E3133-28MS	CS-C-06MS	Decachlorobiphenyl	1	20	21.79	109		10	169
		Tetrachloro-m-xylene	1	20	21.75	109		31	151
		Decachlorobiphenyl	2	20	21.35	107		10	169
		Tetrachloro-m-xylene	2	20	24.67	123		31	151
E3133-29MSD	CS-C-06MSD	Decachlorobiphenyl	1	20	21.81	109		10	169
		Tetrachloro-m-xylene	1	20	21.44	107		31	151
		Decachlorobiphenyl	2	20	21.5	108		10	169
		Tetrachloro-m-xylene	2	20	24.64	123		31	151
I.BLK-PL004838.D	PIBLK-PL004838.D	Decachlorobiphenyl	1	20	20.83	104		10	192
		Tetrachloro-m-xylene	1	20	20.04	100		10	172
		Decachlorobiphenyl	2	20	20.47	102		10	192
		Tetrachloro-m-xylene	2	20	22.73	114		10	172
E3210-09MS	BH14(9-11)MS	Decachlorobiphenyl	1	20	18.43	92		10	169
		Tetrachloro-m-xylene	1	20	19.97	100		31	151
		Decachlorobiphenyl	2	20	17.75	89		10	169
		Tetrachloro-m-xylene	2	20	21.96	110		31	151
3210-10MSD	BH14(9-11)MSD	Decachlorobiphenyl	1	20	17.87	89		10	169
		Tetrachloro-m-xylene	1	20	19.24	96		31	151

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3210-10MSD	BH14(9-11)MSD	DecachlorobiphenyI	2	20	17.62	88		10	169
		Tetrachloro-m-xylene	2	20	22.04	110		31	151
I.BLK-PL004848.D	PIBLK-PL004848.D	DecachlorobiphenyI	1	20	21.65	108		10	192
		Tetrachloro-m-xylene	1	20	20.09	100		10	172
		Decachlorobiphenyl	2	20	20.76	104		10	192
		Tetrachloro-m-xylene	2	20	22.59	113		10	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004685.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**TS-C-02MS**											
E3133-22MS	alpha-BHC	18.6	0	18	ug/kg	97				16	147	
	beta-BHC	18.6	0	18.2	ug/kg	98				25	146	
	delta-BHC	18.6	0	15	ug/kg	81				11	146	
	gamma-BHC (Lindane)	18.6	0	18.4	ug/kg	99				21	147	
	Heptachlor	18.6	0	17.6	ug/kg	95				23	143	
	Aldrin	18.6	0	18.5	ug/kg	99				11	152	
	Endosulfan I	18.6	0	14.9	ug/kg	80				10	164	
	Dieldrin	18.6	0	18.2	ug/kg	98				10	162	
	4,4-DDE	18.6	0	18.2	ug/kg	98				10	174	
	Endrin	18.6	0	14.9	ug/kg	80				10	171	
	Endosulfan II	18.6	0	11.1	ug/kg	60				11	146	
	4,4-DDD	18.6	0	17.2	ug/kg	92				10	150	
	Endosulfan sulfate	18.6	0	6.5	ug/kg	35				10	152	
	4,4-DDT	18.6	0	17.9	ug/kg	96				10	192	
	alpha-Chlordane	18.6	0	18.8	ug/kg	101				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004686.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**TS-C-02MSD**											
E3133-22MSD	alpha-BHC	18.6	0	18.6	ug/kg	100		3		16	147	20
	beta-BHC	18.6	0	17.8	ug/kg	96		2		25	146	20
	delta-BHC	18.6	0	15.3	ug/kg	82		1		11	146	20
	gamma-BHC (Lindane)	18.6	0	18.8	ug/kg	101		2		21	147	20
	Heptachlor	18.6	0	17.9	ug/kg	96		1		23	143	20
	Aldrin	18.6	0	18.9	ug/kg	102		3		11	152	20
	Endosulfan I	18.6	0	15.1	ug/kg	81		1		10	164	20
	Dieldrin	18.6	0	18.5	ug/kg	99		1		10	162	20
	4,4-DDE	18.6	0	18.3	ug/kg	98		0		10	174	20
	Endrin	18.6	0	14.9	ug/kg	80		0		10	171	20
	Endosulfan II	18.6	0	11.2	ug/kg	60		0		11	146	20
	4,4-DDD	18.6	0	17.2	ug/kg	92		0		10	150	20
	Endosulfan sulfate	18.6	0	6.6	ug/kg	35		0		10	152	20
	4,4-DDT	18.6	0	18.1	ug/kg	97		1		10	192	20
	alpha-Chlordane	18.6	0	19	ug/kg	102		1		10	157	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004831.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CS-C-06MS**											
E3133-28MS	alpha-BHC	17.6	0	19.9	ug/kg	113				16	147	
	beta-BHC	17.6	0	19.8	ug/kg	112				25	146	
	delta-BHC	17.6	0	20	ug/kg	114				11	146	
	gamma-BHC (Lindane)	17.6	0	20.2	ug/kg	115				21	147	
	Heptachlor	17.6	0	19.9	ug/kg	113				23	143	
	Aldrin	17.6	0	20	ug/kg	114				11	152	
	Endosulfan I	17.6	0	20.4	ug/kg	116				10	164	
	Dieldrin	17.6	0	19.7	ug/kg	112				10	162	
	4,4-DDE	17.6	0	19.1	ug/kg	109				10	174	
	Endrin	17.6	0	20.1	ug/kg	114				10	171	
	Endosulfan II	17.6	0	24.1	ug/kg	137				11	146	
	4,4-DDD	17.6	0	18.5	ug/kg	105				10	150	
	Endosulfan sulfate	17.6	0	18.7	ug/kg	106				10	152	
	4,4-DDT	17.6	0	20.7	ug/kg	118				10	192	
	alpha-Chlordane	17.6	0	20.2	ug/kg	115				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004832.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CS-C-06MSD**											
E3133-29MSD	alpha-BHC	17.7	0	20	ug/kg	113		0		16	147	20
	beta-BHC	17.7	0	19.9	ug/kg	112		0		25	146	20
	delta-BHC	17.7	0	20.1	ug/kg	114		0		11	146	20
	gamma-BHC (Lindane)	17.7	0	20.3	ug/kg	115		0		21	147	20
	Heptachlor	17.7	0	19.9	ug/kg	112		1		23	143	20
	Aldrin	17.7	0	20.1	ug/kg	114		0		11	152	20
	Endosulfan I	17.7	0	20.4	ug/kg	115		1		10	164	20
	Dieldrin	17.7	0	19.8	ug/kg	112		0		10	162	20
	4,4-DDE	17.7	0	19.3	ug/kg	109		0		10	174	20
	Endrin	17.7	0	20.5	ug/kg	116		2		10	171	20
	Endosulfan II	17.7	0	24.2	ug/kg	137		0		11	146	20
	4,4-DDD	17.7	0	18.6	ug/kg	105		0		10	150	20
	Endosulfan sulfate	17.7	0	18.9	ug/kg	107		1		10	152	20
	4,4-DDT	17.7	0	20.9	ug/kg	118		0		10	192	20
	alpha-Chlordane	17.7	0	20.2	ug/kg	114		1		10	157	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004843.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**BH14(9-II)MS** Non-Program Sample											
E3210-09MS	alpha-BHC	20.6	0	20.9	ug/kg	101				16	147	
	beta-BHC	20.6	0	20.4	ug/kg	99				25	146	
	delta-BHC	20.6	0	21	ug/kg	102				11	146	
	gamma-BHC (Lindane)	20.6	0	21.3	ug/kg	103				21	147	
	Heptachlor	20.6	0	20.4	ug/kg	99				23	143	
	Aldrin	20.6	0	20.3	ug/kg	99				11	152	
	Endosulfan I	20.6	0	20.1	ug/kg	98				10	164	
	Dieldrin	20.6	0	19.6	ug/kg	95				10	162	
	4,4-DDE	20.6	0	18.6	ug/kg	90				10	174	
	Endrin	20.6	0	20.7	ug/kg	100				10	171	
	Endosulfan II	20.6	0	19.4	ug/kg	94				11	146	
	4,4-DDD	20.6	0	18.7	ug/kg	91				10	150	
	Endosulfan sulfate	20.6	0	19.4	ug/kg	94				10	152	
	4,4-DDT	20.6	0	19.8	ug/kg	96				10	192	
	alpha-Chlordane	20.6	0	20	ug/kg	97				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL004844.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**BH14(9-11)MSD**											
E3210-10MSD	alpha-BHC	20.7	0	20.9	ug/kg	101		0		16	147	20
	beta-BHC	20.7	0	20.5	ug/kg	99		0		25	146	20
	delta-BHC	20.7	0	20.9	ug/kg	101		1		11	146	20
	gamma-BHC (Lindane)	20.7	0	21.2	ug/kg	102		1		21	147	20
	Heptachlor	20.7	0	20.3	ug/kg	98		1		23	143	20
	Aldrin	20.7	0	20.3	ug/kg	98		1		11	152	20
	Endosulfan I	20.7	0	19.9	ug/kg	96		2		10	164	20
	Dieldrin	20.7	0	19.4	ug/kg	94		1		10	162	20
	4,4-DDE	20.7	0	18.5	ug/kg	89		1		10	174	20
	Endrin	20.7	0	20.4	ug/kg	99		1		10	171	20
	Endosulfan II	20.7	0	19.1	ug/kg	92		2		11	146	20
	4,4-DDD	20.7	0	18.6	ug/kg	90		1		10	150	20
	Endosulfan sulfate	20.7	0	19.1	ug/kg	92		2		10	152	20
	4,4-DDT	20.7	0	19.7	ug/kg	95		1		10	192	20
	alpha-Chlordane	20.7	0	19.9	ug/kg	96		1		10	157	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PL004678.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71413BS	alpha-BHC	16.7	14.3	ug/kg	86				84	123	
	beta-BHC	16.7	15.2	ug/kg	91				82	123	
	delta-BHC	16.7	14	ug/kg	84				83	126	
	gamma-BHC (Lindane)	16.7	14.4	ug/kg	86				83	125	
	Heptachlor	16.7	14	ug/kg	84				83	122	
	Aldrin	16.7	14.5	ug/kg	87				82	124	
	Endosulfan I	16.7	14.5	ug/kg	87				81	124	
	Dieldrin	16.7	14.4	ug/kg	86				85	121	
	4,4-DDE	16.7	14.1	ug/kg	84				81	123	
	Endrin	16.7	14.5	ug/kg	87				76	130	
	Endosulfan II	16.7	14.4	ug/kg	86				80	125	
	4,4-DDD	16.7	14.2	ug/kg	85				80	131	
	Endosulfan sulfate	16.7	14.5	ug/kg	87				81	122	
	4,4-DDT	16.7	15.1	ug/kg	90				70	129	
	alpha-Chlordane	16.7	14.6	ug/kg	87				84	120	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PL004829.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71549BS	alpha-BHC	16.7	16	ug/kg	96				84	123	
	beta-BHC	16.7	15.8	ug/kg	95				82	123	
	delta-BHC	16.7	16.2	ug/kg	97				83	126	
	gamma-BHC (Lindane)	16.7	16.2	ug/kg	97				83	125	
	Heptachlor	16.7	15.8	ug/kg	95				83	122	
	Aldrin	16.7	16.2	ug/kg	97				82	124	
	Endosulfan I	16.7	16.1	ug/kg	96				81	124	
	Dieldrin	16.7	15.7	ug/kg	94				85	121	
	4,4-DDE	16.7	15.4	ug/kg	92				81	123	
	Endrin	16.7	14.6	ug/kg	87				76	130	
	Endosulfan II	16.7	15.7	ug/kg	94				80	125	
	4,4-DDD	16.7	15.2	ug/kg	91				80	131	
	Endosulfan sulfate	16.7	15.7	ug/kg	94				81	122	
	4,4-DDT	16.7	15.9	ug/kg	95				70	129	
	alpha-Chlordane	16.7	16.2	ug/kg	97				84	120	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71413BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71413BL Lab File ID: PL004677.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/01/2013

Date Analyzed (1): 08/01/2013 Date Analyzed (2): 08/01/2013

Time Analyzed (1): 21:19 Time Analyzed (2): 21:19

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71413BS	PB71413BS	PL004678.D	08/01/2013	08/01/2013
CS-C-03	E3133-10	PL004679.D	08/01/2013	08/01/2013
CS-C-04	E3133-11	PL004680.D	08/01/2013	08/01/2013
CS-C-05	E3133-12	PL004681.D	08/01/2013	08/01/2013
CS-C-05X	E3133-13	PL004682.D	08/01/2013	08/01/2013
TS-C-02	E3133-22	PL004683.D	08/01/2013	08/01/2013
TS-C-02X	E3133-23	PL004684.D	08/01/2013	08/01/2013
TS-C-02MS	E3133-22MS	PL004685.D	08/01/2013	08/01/2013
TS-C-02MSD	E3133-22MSD	PL004686.D	08/01/2013	08/01/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71549BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71549BL Lab File ID: PL004828.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/07/2013

Date Analyzed (1): 08/08/2013 Date Analyzed (2): 08/08/2013

Time Analyzed (1): 10:53 Time Analyzed (2): 10:53

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71549BS	PB71549BS	PL004829.D	08/08/2013	08/08/2013
CS-C-06	E3133-27	PL004830.D	08/08/2013	08/08/2013
CS-C-06MS	E3133-28MS	PL004831.D	08/08/2013	08/08/2013
CS-C-06MSD	E3133-29MSD	PL004832.D	08/08/2013	08/08/2013
BH14(9-11)MS	E3210-09MS	PL004843.D	08/08/2013	08/08/2013
BH14(9-11)MSD	E3210-10MSD	PL004844.D	08/08/2013	08/08/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	3.6 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010170.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.4	U	3.4	3.4	17.6	ug/kg
11104-28-2	Aroclor-1221	3.4	U	3.4	3.4	17.6	ug/kg
11141-16-5	Aroclor-1232	3.4	U	3.4	3.4	17.6	ug/kg
53469-21-9	Aroclor-1242	3.4	U	3.4	3.4	17.6	ug/kg
12672-29-6	Aroclor-1248	3.4	U	3.4	3.4	17.6	ug/kg
11097-69-1	Aroclor-1254	3.4	U	1.5	3.4	17.6	ug/kg
11096-82-5	Aroclor-1260	3.4	U	3.4	3.4	17.6	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.3		10 - 166		102%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.8		60 - 125		84%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	6.5 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010171.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.6	U	3.6	3.6	18.2	ug/kg
11104-28-2	Aroclor-1221	3.6	U	3.6	3.6	18.2	ug/kg
11141-16-5	Aroclor-1232	3.6	U	3.6	3.6	18.2	ug/kg
53469-21-9	Aroclor-1242	3.6	U	3.6	3.6	18.2	ug/kg
12672-29-6	Aroclor-1248	3.6	U	3.6	3.6	18.2	ug/kg
11097-69-1	Aroclor-1254	3.6	U	1.6	3.6	18.2	ug/kg
11096-82-5	Aroclor-1260	3.6	U	3.6	3.6	18.2	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.9		10 - 166		105%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.3		60 - 125		77%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.12 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010172.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.5	U	3.5	3.5	18	ug/kg
11104-28-2	Aroclor-1221	3.5	U	3.5	3.5	18	ug/kg
11141-16-5	Aroclor-1232	3.5	U	3.5	3.5	18	ug/kg
53469-21-9	Aroclor-1242	3.5	U	3.5	3.5	18	ug/kg
12672-29-6	Aroclor-1248	3.5	U	3.5	3.5	18	ug/kg
11097-69-1	Aroclor-1254	3.5	U	1.6	3.5	18	ug/kg
11096-82-5	Aroclor-1260	3.5	U	3.5	3.5	18	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	22.2		10 - 166		111%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.6		60 - 125		88%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010173.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.5	U	3.5	3.5	18.1	ug/kg
11104-28-2	Aroclor-1221	3.5	U	3.5	3.5	18.1	ug/kg
11141-16-5	Aroclor-1232	3.5	U	3.5	3.5	18.1	ug/kg
53469-21-9	Aroclor-1242	3.5	U	3.5	3.5	18.1	ug/kg
12672-29-6	Aroclor-1248	3.5	U	3.5	3.5	18.1	ug/kg
11097-69-1	Aroclor-1254	3.5	U	1.6	3.5	18.1	ug/kg
11096-82-5	Aroclor-1260	3.5	U	3.5	3.5	18.1	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.3		10 - 166		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.3		60 - 125		86%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	10.7 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010176.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.7	U	3.7	3.7	19	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	19	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	19	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	19	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	19	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.7	3.7	19	ug/kg
11096-82-5	Aroclor-1260	3.7	U	3.7	3.7	19	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	22.2		10 - 166		111%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.5		60 - 125		82%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	11.1 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO010177.D	1	08/01/13	08/02/13	PB71412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.7	U	3.7	3.7	19.1	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	19.1	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	19.1	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	19.1	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	19.1	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.7	3.7	19.1	ug/kg
11096-82-5	Aroclor-1260	3.7	U	3.7	3.7	19.1	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.1		10 - 166		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.3		60 - 125		81%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	5.8 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC014723.D	1	08/07/13	08/08/13	PB71548

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.5	U	3.5	3.5	18	ug/kg
11104-28-2	Aroclor-1221	3.5	U	3.5	3.5	18	ug/kg
11141-16-5	Aroclor-1232	3.5	U	3.5	3.5	18	ug/kg
53469-21-9	Aroclor-1242	3.5	U	3.5	3.5	18	ug/kg
12672-29-6	Aroclor-1248	3.5	U	3.5	3.5	18	ug/kg
11097-69-1	Aroclor-1254	3.5	U	1.6	3.5	18	ug/kg
11096-82-5	Aroclor-1260	3.5	U	3.5	3.5	18	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.2		10 - 166		96%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.8		60 - 125		99%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
LBLK-PC014660.D	PIBLK-PC014660.D	Tetrachloro-m-xylene	1	20	22.24	111		35	137
		Decachlorobiphenyl	1	20	22.81	114		40	135
		Tetrachloro-m-xylene	2	20	24.07	120		35	137
		Decachlorobiphenyl	2	20	22.81	114		40	135
LBLK-PC014716.D	PIBLK-PC014716.D	Tetrachloro-m-xylene	1	20	19.59	98		35	137
		Decachlorobiphenyl	1	20	19.59	98		40	135
		Tetrachloro-m-xylene	2	20	21.73	109		35	137
		Decachlorobiphenyl	2	20	17.54	88		40	135
PB71548BL	PB71548BL	Tetrachloro-m-xylene	1	20	17.17	86		10	166
		Decachlorobiphenyl	1	20	21.29	106		60	125
		Tetrachloro-m-xylene	2	20	20.51	103		10	166
		Decachlorobiphenyl	2	20	22.64	113		60	125
PB71548BS	PB71548BS	Tetrachloro-m-xylene	1	20	18.16	91		10	166
		Decachlorobiphenyl	1	20	23.53	118		60	125
		Tetrachloro-m-xylene	2	20	21.62	108		10	166
		Decachlorobiphenyl	2	20	23.53	118		60	125
E3133-27	CS-C-06	Tetrachloro-m-xylene	1	20	19.15	96		10	166
		Decachlorobiphenyl	1	20	19.79	99		60	125
		Tetrachloro-m-xylene	2	20	22.7	114		10	166
		Decachlorobiphenyl	2	20	22.08	110		60	125
E3133-28MS	CS-C-06MS	Tetrachloro-m-xylene	1	20	20.98	105		10	166
		Decachlorobiphenyl	1	20	22.41	112		60	125
		Tetrachloro-m-xylene	2	20	24.29	121		10	166
		Decachlorobiphenyl	2	20	23.08	115		60	125
E3133-29MSD	CS-C-06MSD	Tetrachloro-m-xylene	1	20	20.98	105		10	166
		Decachlorobiphenyl	1	20	22.25	111		60	125
		Tetrachloro-m-xylene	2	20	24.21	121		10	166
		Decachlorobiphenyl	2	20	24.15	121		60	125
LBLK-PC014726.D	PIBLK-PC014726.D	Tetrachloro-m-xylene	1	20	22.09	110		35	137
		Decachlorobiphenyl	1	20	22.5	113		40	135
		Tetrachloro-m-xylene	2	20	24.17	121		35	137
		Decachlorobiphenyl	2	20	24.63	123		40	135
E3210-09MS	BH14(9-11)MS	Tetrachloro-m-xylene	1	20	19.64	98		10	166
		Decachlorobiphenyl	1	20	21.22	106		60	125
		Tetrachloro-m-xylene	2	20	23.27	116		10	166
		Decachlorobiphenyl	2	20	23.45	117		60	125
E3210-10MSD	BH14(9-11)MSD	Tetrachloro-m-xylene	1	20	16.49	82		10	166
		Decachlorobiphenyl	1	20	16.78	84		60	125
		Tetrachloro-m-xylene	2	20	19.36	97		10	166
		Decachlorobiphenyl	2	20	18.96	95		60	125
LBLK-PC014740.D	PIBLK-PC014740.D	Tetrachloro-m-xylene	1	20	22.89	114		35	137
		Decachlorobiphenyl	1	20	21.91	110		40	135
		Tetrachloro-m-xylene	2	20	23.68	118		35	137

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PC014740.D	PIBLK-PC014740.D	Decachlorobiphenyl	2	20	25.38	127		40	135
I.BLK-PO009996.D	PIBLK-PO009996.D	Tetrachloro-m-xylene	1	20	20.57	103		35	137
		Decachlorobiphenyl	1	20	20.9	104		40	135
		Tetrachloro-m-xylene	2	20	22.06	110		35	137
		Decachlorobiphenyl	2	20	21.96	110		40	135
I.BLK-PO010162.D	PIBLK-PO010162.D	Tetrachloro-m-xylene	1	20	24.9	125		35	137
		Decachlorobiphenyl	1	20	21.8	109		40	135
		Tetrachloro-m-xylene	2	20	24.53	123		35	137
		Decachlorobiphenyl	2	20	19.62	98		40	135
PB71412BL	PB71412BL	Tetrachloro-m-xylene	1	20	18.99	95		10	166
		Decachlorobiphenyl	1	20	14.51	73		60	125
		Tetrachloro-m-xylene	2	20	17.08	85		10	166
		Decachlorobiphenyl	2	20	13.08	65		60	125
PB71412BS	PB71412BS	Tetrachloro-m-xylene	1	20	19.76	99		10	166
		Decachlorobiphenyl	1	20	15.94	80		60	125
		Tetrachloro-m-xylene	2	20	18.27	91		10	166
		Decachlorobiphenyl	2	20	14.28	71		60	125
E3133-10	CS-C-03	Tetrachloro-m-xylene	1	20	20.34	102		10	166
		Decachlorobiphenyl	1	20	16.84	84		60	125
		Tetrachloro-m-xylene	2	20	19.42	97		10	166
		Decachlorobiphenyl	2	20	14.87	74		60	125
E3133-11	CS-C-04	Tetrachloro-m-xylene	1	20	20.92	105		10	166
		Decachlorobiphenyl	1	20	15.34	77		60	125
		Tetrachloro-m-xylene	2	20	20.31	102		10	166
		Decachlorobiphenyl	2	20	13.85	69		60	125
E3133-12	CS-C-05	Tetrachloro-m-xylene	1	20	22.17	111		10	166
		Decachlorobiphenyl	1	20	17.61	88		60	125
		Tetrachloro-m-xylene	2	20	21.45	107		10	166
		Decachlorobiphenyl	2	20	15.94	80		60	125
E3133-13	CS-C-05X	Tetrachloro-m-xylene	1	20	21.3	106		10	166
		Decachlorobiphenyl	1	20	17.3	86		60	125
		Tetrachloro-m-xylene	2	20	20.58	103		10	166
		Decachlorobiphenyl	2	20	15.52	78		60	125
I.BLK-PO010174.D	PIBLK-PO010174.D	Tetrachloro-m-xylene	1	20	21.85	109		35	137
		Decachlorobiphenyl	1	20	18.65	93		40	135
		Tetrachloro-m-xylene	2	20	21.34	107		35	137
		Decachlorobiphenyl	2	20	16.49	82		40	135
E3133-22	TS-C-02	Tetrachloro-m-xylene	1	20	22.25	111		10	166
		Decachlorobiphenyl	1	20	16.49	82		60	125
		Tetrachloro-m-xylene	2	20	21.75	109		10	166
		Decachlorobiphenyl	2	20	15.36	77		60	125
E3133-23	TS-C-02X	Tetrachloro-m-xylene	1	20	21.12	106		10	166
		Decachlorobiphenyl	1	20	16.29	81		60	125

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3133-23	TS-C-02X	Tetrachloro-m-xylene	2	20	20.7	104		10	166
		Decachlorobiphenyl	2	20	15.39	77		60	125
E3133-13MS	CS-C-05XMS	Tetrachloro-m-xylene	1	20	21.53	108		10	166
		Decachlorobiphenyl	1	20	18.2	91		60	125
		Tetrachloro-m-xylene	2	20	20.77	104		10	166
		Decachlorobiphenyl	2	20	16.96	85		60	125
E3133-13MSD	CS-C-05XMSD	Tetrachloro-m-xylene	1	20	22.27	111		10	166
		Decachlorobiphenyl	1	20	18.81	94		60	125
		Tetrachloro-m-xylene	2	20	21.45	107		10	166
		Decachlorobiphenyl	2	20	17.69	88		60	125
LBLK-PO010183.D	PIBLK-PO010183.D	Tetrachloro-m-xylene	1	20	22.13	111		35	137
		Decachlorobiphenyl	1	20	19.65	98		40	135
		Tetrachloro-m-xylene	2	20	21.86	109		35	137
		Decachlorobiphenyl	2	20	18.18	91		40	135

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014724.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CS-C-06MS**											
E3133-28MS	AR1016	70.6	0	84.8	ug/kg	120				40	140	
	AR1260	70.6	0	83.6	ug/kg	118				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014725.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CS-C-06MSD**											
E3133-29MSD	AR1016	70.6	0	84.7	ug/kg	120		0		40	140	20
	AR1260	70.6	0	85.9	ug/kg	122		3		60	130	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014736.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**BH14(9-11)MS** NIN - Program Sample JBB											
E3210-09MS	AR1016	82.4	0	96.2	ug/kg	117				40	140	
	AR1260	82.4	0	100	ug/kg	121				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC014737.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**BH14(9-11)MSD**	NON-program sample BH3										
E3210-10MSD	AR1016	82.6	0	84.9	ug/kg	103		13		40	140	20
	AR1260	82.6	0	86.5	ug/kg	105		14		60	130	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PO010178.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CS-C-05XMS**											
E3133-13MS	AR1016	70.7	0	91.6	ug/kg	130				40	140	
	AR1260	70.7	0	78.7	ug/kg	111				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PO010180.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CS-C-05XMSD**											
E3133-13MSD	AR1016	70.6	0	95.6	ug/kg	135		4		40	140	20
	AR1260	70.6	0	82.5	ug/kg	117		5		60	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PC014722.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71548BS	AR1016	66.6	71.6	ug/kg	108				53	140	
	AR1260	66.6	75.6	ug/kg	114				65	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PO010169.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71412BS	AR1016	66.6	72.1	ug/kg	108				53	140	
	AR1260	66.6	61.1	ug/kg	92				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71412BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71412BL Lab File ID: PO010168.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/01/2013

Date Analyzed (1): 08/02/2013 Date Analyzed (2): 08/02/2013

Time Analyzed (1): 16:06 Time Analyzed (2): 16:06

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71412BS	PB71412BS	PO010169.D	08/02/2013	08/02/2013
CS-C-03	E3133-10	PO010170.D	08/02/2013	08/02/2013
CS-C-04	E3133-11	PO010171.D	08/02/2013	08/02/2013
CS-C-05	E3133-12	PO010172.D	08/02/2013	08/02/2013
CS-C-05X	E3133-13	PO010173.D	08/02/2013	08/02/2013
TS-C-02	E3133-22	PO010176.D	08/02/2013	08/02/2013
TS-C-02X	E3133-23	PO010177.D	08/02/2013	08/02/2013
CS-C-05XMS	E3133-13MS	PO010178.D	08/02/2013	08/02/2013
CS-C-05XMSD	E3133-13MSD	PO010180.D	08/02/2013	08/02/2013

COMMENTS:

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71548BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71548BL Lab File ID: PC014721.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/07/2013

Date Analyzed (1): 08/08/2013 Date Analyzed (2): 08/08/2013

Time Analyzed (1): 18:08 Time Analyzed (2): 18:08

Instrument ID (1): ECD_C Instrument ID (2): ECD_C

GC Column (1): RTX-CLPest ID: 0.32 (mm) GC Column (2): RTX-CLPestII ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71548BS	PB71548BS	PC014722.D	08/08/2013	08/08/2013
CS-C-06	E3133-27	PC014723.D	08/08/2013	08/08/2013
CS-C-06MS	E3133-28MS	PC014724.D	08/08/2013	08/08/2013
CS-C-06MSD	E3133-29MSD	PC014725.D	08/08/2013	08/08/2013
BH14(9-11)MS	E3210-09MS	PC014736.D	08/08/2013	08/08/2013
BH14(9-11)MSD	E3210-10MSD	PC014737.D	08/08/2013	08/08/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-03	SDG No.:	E3133
Lab Sample ID:	E3133-10	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	3.6 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007119.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.3	UJ	11.3	17.3	69.4	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	271		12 - 189		54%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-04	SDG No.:	E3133
Lab Sample ID:	E3133-11	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	6.5 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007120.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.8	UJ	11.6	17.8	71.5	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	250		12 - 189		50%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05	SDG No.:	E3133
Lab Sample ID:	E3133-12	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007121.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.7	UJ	11.6	17.7	71.2	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	266		12 - 189		53%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	CS-C-05X	SDG No.:	E3133
Lab Sample ID:	E3133-13	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	6 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007122.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.7	U J	11.6	17.7	71.1	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	223		12 - 189		45%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02	SDG No.:	E3133
Lab Sample ID:	E3133-22	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	10.7 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007123.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	18.6	U J	12.2	18.6	74.9	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	254		12 - 189		51%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	07/30/13
Project:	Catlin NY	Date Received:	07/31/13
Client Sample ID:	TS-C-02X	SDG No.:	E3133
Lab Sample ID:	E3133-23	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	11.1 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007124.D	1	08/01/13	08/02/13	PB71411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	18.7	J U	12.3	18.7	75.2	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	288		12 - 189		58%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/05/13
Project:	Catlin NY	Date Received:	08/06/13
Client Sample ID:	CS-C-06	SDG No.:	E3133
Lab Sample ID:	E3133-27	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	5.8 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007203.D	1	08/07/13	08/13/13	PB71547

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.7	UQJ	11.6	17.7	71	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	242		12 - 189		49%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PE007004.D	PIBLK-PE007004.D	2,4-DCAA	1	500	530.06	106		43	172
		2,4-DCAA	2	500	533.53	107		43	172
I.BLK-PE007115.D	PIBLK-PE007115.D	2,4-DCAA	1	500	522.12	104		43	172
		2,4-DCAA	2	500	571.78	114		43	172
PB71411BL	PB71411BL	2,4-DCAA	1	500	288.56	58		12	189
		2,4-DCAA	2	500	322.02	64		12	189
PB71411BS	PB71411BS	2,4-DCAA	1	500	491.17	98		12	189
		2,4-DCAA	2	500	545.81	109		12	189
E3133-10	CS-C-03	2,4-DCAA	1	500	271.77	54		12	189
		2,4-DCAA	2	500	268.96	54		12	189
E3133-11	CS-C-04	2,4-DCAA	1	500	250.99	50		12	189
		2,4-DCAA	2	500	276.87	55		12	189
E3133-12	CS-C-05	2,4-DCAA	1	500	266.13	53		12	189
		2,4-DCAA	2	500	281.52	56		12	189
E3133-13	CS-C-05X	2,4-DCAA	1	500	223.11	45		12	189
		2,4-DCAA	2	500	237.25	47		12	189
E3133-22	TS-C-02	2,4-DCAA	1	500	254.11	51		12	189
		2,4-DCAA	2	500	253.3	51		12	189
E3133-23	TS-C-02X	2,4-DCAA	1	500	288.91	58		12	189
		2,4-DCAA	2	500	279.39	56		12	189
E3133-23MS	TS-C-02XMS	2,4-DCAA	1	500	231.25	46		12	189
		2,4-DCAA	2	500	243.8	49		12	189
E3133-23MSD	TS-C-02XMSD	2,4-DCAA	1	500	231.13	46		12	189
		2,4-DCAA	2	500	250.97	50		12	189
I.BLK-PE007127.D	PIBLK-PE007127.D	2,4-DCAA	1	500	525.51	105		43	172
		2,4-DCAA	2	500	587.73	118		43	172
I.BLK-PE007178.D	PIBLK-PE007178.D	2,4-DCAA	1	500	571.79	114		43	172
		2,4-DCAA	2	500	597.5	120		43	172
I.BLK-PE007201.D	PIBLK-PE007201.D	2,4-DCAA	1	500	611.47	122		43	172
		2,4-DCAA	2	500	650.23	130		43	172
E3133-27	CS-C-06	2,4-DCAA	1	500	242.74	49		12	189
		2,4-DCAA	2	500	261.07	52		12	189
E3133-28MS	CS-C-06MS	2,4-DCAA	1	500	285.52	57		12	189
		2,4-DCAA	2	500	277.81	56		12	189
E3133-29MSD	CS-C-06MSD	2,4-DCAA	1	500	253.28	51		12	189
		2,4-DCAA	2	500	263.51	53		12	189
PB71547BL	PB71547BL	2,4-DCAA	1	500	168.54	34		12	189
		2,4-DCAA	2	500	187.48	37		12	189
I.BLK-PE007213.D	PIBLK-PE007213.D	2,4-DCAA	1	500	374.19	75		43	172
		2,4-DCAA	2	500	402.19	80		43	172
I.BLK-PE007219.D	PIBLK-PE007219.D	2,4-DCAA	1	500	542.83	109		43	172
		2,4-DCAA	2	500	579.07	116		43	172
PB71547BS	PB71547BS	2,4-DCAA	1	500	548.33	110		12	189

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Surrogate Summary

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
PB71547BS	PB71547BS	2,4-DCAA	2	500	534.63	107		30 12	189 150
I.BLK-PE007231.D	PIBLK-PE007231.D	2,4-DCAA	1	500	719.49	144		43	172
		2,4-DCAA	2	500	755.48	151		43	172
E3210-09MS	BH14(9-11)MS	2,4-DCAA	1	500	152.8	31		12	189
		2,4-DCAA	2	500	140.42	28		12	189
E3210-10MSD	BH14(9-11)MSD	2,4-DCAA	1	500	99.51	20		12	189
		2,4-DCAA	2	500	103.94	21		12	189
I.BLK-PE007245.D	PIBLK-PE007245.D	2,4-DCAA	1	500	620.31	124		43	172
		2,4-DCAA	2	500	634.03	127		43	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007125.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**TS-C-02XMS**											
E3133-23MS	2,4,5-TP(Silvex)	190	0	72.7	ug/Kg	38				13	154	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007126.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**TS-C-02XMSD**											
E3133-23MSD	2,4,5-TP(Silvex)	190	0	76.2	ug/Kg	40		5		13	154	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007204.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CS-C-06MS**											
E3133-28MS	2,4,5-TP(Silvex)	180	0	66	ug/Kg	37				13	154	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007205.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CS-C-06MSD**											
E3133-29MSD	2,4,5-TP(Silvex)	180	0	42	ug/Kg	23		47	*	13	154	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007233.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**BH14(9-11)MS**											
E3210-09MS	2,4,5-TP(Silvex)	210	0	52.2	ug/Kg	25				13	154	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007234.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**BH14(9-11)MSD**											
E3210-10MSD	2,4,5-TP(Silvex)	210	0	32.2	ug/Kg	15		50	*	13	154	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE007118.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71411BS	2,4,5-TP(Silvex)	170	110	ug/Kg	65				63	134	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3133

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE007229.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB71547BS	2,4,5-TP(Silvex)	170	170	ug/Kg	100				63	134	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71411BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71411BL Lab File ID: PE007117.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/01/2013

Date Analyzed (1): 08/02/2013 Date Analyzed (2): 08/02/2013

Time Analyzed (1): 19:00 Time Analyzed (2): 19:00

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB71411BS	PB71411BS	PE007118.D	08/02/2013	08/02/2013
CS-C-03	E3133-10	PE007119.D	08/02/2013	08/02/2013
CS-C-04	E3133-11	PE007120.D	08/02/2013	08/02/2013
CS-C-05	E3133-12	PE007121.D	08/02/2013	08/02/2013
CS-C-05X	E3133-13	PE007122.D	08/02/2013	08/02/2013
TS-C-02	E3133-22	PE007123.D	08/02/2013	08/02/2013
TS-C-02X	E3133-23	PE007124.D	08/02/2013	08/02/2013
TS-C-02XMS	E3133-23MS	PE007125.D	08/02/2013	08/02/2013
TS-C-02XMSD	E3133-23MSD	PE007126.D	08/02/2013	08/02/2013

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB71547BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3133 SAS No.: E3133 SDG NO.: E3133

Lab Sample ID: PB71547BL Lab File ID: PE007206.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 08/07/2013

Date Analyzed (1): 08/13/2013 Date Analyzed (2): 08/13/2013

Time Analyzed (1): 12:59 Time Analyzed (2): 12:59

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CS-C-06	E3133-27	PE007203.D	08/13/2013	08/13/2013
CS-C-06MS	E3133-28MS	PE007204.D	08/13/2013	08/13/2013
CS-C-06MSD	E3133-29MSD	PE007205.D	08/13/2013	08/13/2013
PB71547BS	PB71547BS	PE007229.D	08/14/2013	08/14/2013
BH14(9-11)MS	E3210-09MS	PE007233.D	08/14/2013	08/14/2013
BH14(9-11)MSD	E3210-10MSD	PE007234.D	08/14/2013	08/14/2013

COMMENTS:

DATA USABILITY
SUMMARY REPORT

CBS TOWNLEY HILL SITE

SAMPLED 9/19/2013
SDG E3782

VOLATILES, SEMIVOLATILES. PESTICIDES
PCB, HERBICIDES, METALS
WET CHEMISTRY

Prepared for:

VIASANT, LLC.
606 E. Baltimore Pike, Floor 3
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE
Borrow Soil Confirmation
SDG: E3782
Sampled 9/19/2013

VOLATILE ORGANICS, SEMIVOLATILE ORGANICS
PESTICIDES, PCB, HERBICICES, METALS

CS-D-16	(E3782-01)	CS-D-17	(E3782-02)
CS-D-18	(E3782-03)	CS-C-07	(E3782-04)
TB-004	(E3782-05)		

DATA ASSESSMENT

An ASP data package containing analytical results for four soil samples and a trip blank was received from VIASANT, LLC on 16Nov13. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the CBS Townley Hill Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of volatile organics, semivolatile organics, pesticides, PCB, herbicides, cyanide, hexavalent chromium and trivalent chromium. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-24, Rev. #2, August 2008, Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B; SOP HW-22, Rev.#4, August 2008, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D; SOP HW-45, Rev.#1, October 2006, Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A, SOP HW-44 Rev.#1, October 2006, Validating Pesticide Compounds by Gas Chromatography SW-846 Method 8081B; and SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) were used as technical references.

The 1,4-dioxane results from this delivery group have been qualified as estimations due to poor calibration performance.

The methylene chloride concentrations found in this group of samples should be interpreted as laboratory artifacts.

The acetone concentrations found in CS-D-16, CS-D-17 and CS-D-18 have been qualified as estimations because they may represent laboratory artifacts.

The silver and lead results from CS-C-07 have been qualified as estimations due to unacceptable spiked sample recoveries.

The copper and manganese results from CS-C-07 have been qualified as estimations due to poor serial dilution performance.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and

completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "U", "UJ" or "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 24NOV13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Samples must remain chilled to 4°C between the time of collection and the time of analysis. Soil samples must be analyzed for volatile organics and cyanide within 12 days. Extractions for semivolatile organics, pesticides, PCB and herbicides must be performed within 5 days. Sample extracts must be analyzed within 40 days. Metals samples must be analyzed within 180 days, mercury within 26 days.

This sample delivery group contained four soil samples that were collected from the CBS Townley Hill Site and shipped to the laboratory, via FedEx, on 19Sep13. The shipment arrived intact and packed with ice the following morning. A cooler temperature of 6°C were recorded at the time of laboratory receipt.

It is noted that there was no documentation to indicate that custody seals were present and intact on the cooler.

Laboratory data was complete and well organized. Each analysis was completed within the ASP holding time limitations and was supported by the raw data. A detailed discussion of the review process follows.

VOLATILE ORGANICS

Every program sample except CS-C-07 was analyzed for volatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and a trip blank were analyzed with this group of samples. Although each of these blanks demonstrated acceptable chromatography, one method blank contained 1.8 µ/kg of methylene chloride. Similar artifacts were present in CS-D-16, CS-D-17 and CS-D-18. Methylene chloride should be interpreted as undetected in these samples. A detection limit equaling CRQL should be assumed.

Although not found in blanks, acetone was also detected in CS-D-16, CS-D-17 and CS-D-18. These concentrations have been qualified as estimations because low levels of acetone frequently represent laboratory artifacts. Acetone could not be removed from the sample reports because it was not present in the associated blanks.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. Each of these checks satisfied the ASP acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 05Sep13 and 20Sep13. Standards of 5, 10, 20, 50, 100 and 150 µg/l were included in the calibration on 05Sep13. The 20Sep13 calibration included standards of 5, 20, 50, 75, 100 and 150 µg/l. The calibration on 05Sep13 included a heated purge. With the exception of 1,4-dioxane, each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations. 1,4-Dioxane standards, however, failed to produce the required minimum levels of instrument response. The 1,4-dioxane results from this group of samples have been qualified as estimations based on this performance.

Continuing calibration checks were performed on 20Sep13 and 23Sep13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability. It is noted that the response of 1,4-dioxane was again low during these checks.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, an incorrect acceptance criteria was applied. However, when compared to the ASP requirements, acceptable recoveries were reported for each surrogate addition to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, an acceptable response was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Two samples from unrelated delivery groups were chosen for matrix spiking. The entire list of analytes targeted by this program was added to two portions of both samples. One MS/MSD pair produced an acceptable recovery of every targeted analyte except trichloroethene (61%). This single result, alone, does not warrant data qualifications.

The second MS/MSD pair demonstrated poor precision in measurements of every targeted analyte. This performance is not a significant concern because each analyte recovery was within the laboratory's range of acceptance.

Two solid spiked blank (LCS) were also analyzed with this group of

samples. These LCS produced acceptable recoveries of each targeted analyte.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this delivery group.

SEMIVOLATILE ORGANICS

CS-C-07 was analyzed for semivolatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a

range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 18Sep13. Standards of 10, 25, 40, 50, 60 and 80 ng were included. Each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration.

Calibration verifications were performed on 20Sep13 and 21Sep13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, the laboratory evaluated surrogate performance based on its own acceptance criteria. When compared to the ASP requirements, however, an acceptable recovery was reported for every surrogate addition to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of 2. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these requirements, acceptable performance was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries

provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. The entire analyte list was added to two portions of this sample. The recoveries of these spikes demonstrated acceptable levels of measurement precision and accuracy.

A solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable recovery of each analyte targeted by this program.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate was not identified in this delivery group.

PESTICIDES

CS-C-07 was analyzed for pesticides by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 18Sep13. Single component pesticide standards of 5, 25, 50, 75 and 100

ng/ml were analyzed on two chromatography columns, VB-MR1 and ZB-MR2. These standards produced an acceptable level of instrument response and demonstrated an acceptable degree of linearity.

Calibration verifications were performed on 20Sep13 and 23Sep13, prior to and terminating each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability on both chromatographic columns.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

CS-C-07 was selected for matrix spiking. The entire list of targeted single component pesticides was added to two portions of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy.

One solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable recovery of each single component pesticide.

PCB

CS-C-07 was analyzed for PCB by gas chromatography. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to insure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

Initial instrument calibrations were performed on 19Sep13 and 23Sep13. Both calibrations addressed five representative peaks of AR1016 and AR1260 at concentrations of 50, 250, 500, 750 and 1000 ng/ml. These standards were analyzed on two chromatographic columns, RTX-CLPest and RTX-CLPestII. Each sequence of standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity. Single point calibrations were performed for the representative peaks of AR1221, AR1232, AR1242, AR1248 and AR1254.

Calibration verification standards of AR1016 and AR1260 were analyzed on 24Sep13 and 30Sep13, prior to and terminating each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, acceptable performance was demonstrated by the initial calibration check on both days that samples were analyzed. Although degraded performance was observed during the final check on both days, the reported recoveries satisfied the requirements for a standard at the end of an analytical sequence. Data qualifications are not required.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. A decachlorobiphenyl

recovery of 50% was reported from CS-C-07. Although this result fell outside the laboratory's range of acceptance, the ASP requirement was satisfied. It is also noted that an acceptable recovery was obtained from the second chromatographic column.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. AR1016 and AR1260 were added to two portions of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy. It is noted, however, that these results provide no insight to matrix interferences that might affect the analysis of samples from the Townley Hill site.

One solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced acceptable recoveries of AR1016 and AR1260.

HERBICIDES

CS-C-07 was analyzed for 2,4,5-TP (Silvex) by gas chromatography. This analysis was performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The initial instrument calibration was performed on 19Sep13. Silvex standards of 200, 500, 750, 1000 and 1500 ng/ml were analyzed on two chromatography columns, ZB-35-HT and ZB-XLB-HT. These standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity on both chromatographic systems.

Calibration verifications were performed on 20Sep13, prior to and following the twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, the check preceding the analysis of samples demonstrated a stable chromatographic system. The check following the analysis of samples produced a low 2,4-DCAA recovery on the ZB-XLB-HT column. This performance warrants no concern because acceptable performance was obtained from the ZB-35-HT column.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

2,4-DCAA was added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. 2,4,5-TP was added to two portions of this sample. These spikes produced unacceptably low recoveries of 2,4,5-TP (13%,21%).

A solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable 2,4,5-TP recovery of 88%. Based on this performance, the results from the MS/MSD spikes are assumed to be the result of an interfering sample matrix. Because the MS/MSD results provide no indication of interferences associated with the matrix of CS-C-07, the 2,4,5-TP result from CS-C-07 had been qualified as an estimation and not rejected.

METALS

CS-C-07 was analyzed for mercury and ICP metals. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Calibrations

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

Contract Required Detection Limit Standards (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

CRDL standards were analyzed at the beginning of each analytical sequence and periodically throughout the analysis of samples. The recoveries reported for these standards satisfied the ASP acceptance criteria.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. A preparation blank was digested and analyzed with this group of

samples. Each laboratory prepared blank was free of targeted analyte contamination.

Interference Check Sample (ICSA, ICSAB)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference check standards were reported from the beginning of each ICP analysis sequence. ICS standards were not analyzed at the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The ICS performance associated with the analytes targeted by this program satisfied the ASP acceptance criteria.

Predigestion Spike

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

Two portions of a sample from an unrelated program were spiked with targeted analytes. The recoveries reported for these additions included low recoveries of silver (71%,69%) and lead (73%,72%). The silver and lead results reported from CS-C-07 have been qualified s estimations based on this performance.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Two samples from an unrelated program were analyzed in duplicate. Both duplicate pairs demonstrated an acceptable level of measurement precision.

Laboratory Control Standards

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An LCS standard was digested and analyzed with each preparation group of samples. Acceptable recoveries were reported for each analyte targeted by this program.

Serial Dilution Samples

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

A sample from an unrelated program was prepared as a serial dilution. Of the analytes present in this sample, at a concentration exceeding fifty times IDL, only manganese differed from the diluted result by more than 10%. The manganese result from CS-C-07 has been qualified as an estimation based on this performance.

WET CHEMISTRY

CS-C-07 was analyzed for hexavalent chromium, cyanide and trivalent chromium. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Hexavalent Chromium (CrVI) and Cyanide

The analysis of CrVI and cyanide samples was associated with the appropriate QC checks. The reported QC included acceptable calibration performance and clean blanks. Duplicate samples, spiked samples and spiked blanks demonstrated acceptable levels of measurement precision and accuracy.

It is noted, however, that the cyanide spiked sample was prepared with a sample from an unrelated program. This work provided no insight to matrix interferences that might bias the analysis of samples from this program.

Trivalent Chromium

Because CS-C-07 produced a negative CrVI result, the trivalent chromium concentration in CS-C-07 equaled the reported concentration of total chromium.

DATA QUALIFICATIONS

CBS Townley Hill Site

Sampled September 19, 2013

		BLANKS METH CL	BLANK ACETONE	CALIBRATE 1,4-DIOXANE	SPIKES 2,4,5-TP	SPIKES SILVER	SPIKE LEAD	SER DIL MANGANESE
CS-D-16	(E3782-01)	4.8U	12J	96.7UJ				
CS-D-17	(E3782-02)	4.5U	8.6J	89.2UJ				
CS-D-18	(E3782-03)	4.7U	59.6J	94.9UJ				
CS-C-07	(E3782-04)				17.6UJ	0.99J	8.8J	320J
TB-004	(E3782-05)			50UJ				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-16	SDG No.:	E3782
Lab Sample ID:	E3782-01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	5.1
Sample Wt/Vol:	5.45 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038905.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.48	U	0.48	0.48	4.8	ug/Kg
75-35-4	1,1-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-64-1	Acetone	12	J	2.4	2.4	24.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.48	U	0.48	0.48	4.8	ug/Kg
75-09-2	Methylene Chloride	4.8 2	U JB	0.48	0.48	4.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
75-34-3	1,1-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
78-93-3	2-Butanone	7.3	U	3	7.3	24.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.48	U	0.48	0.48	4.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
67-66-3	Chloroform	0.48	U	0.48	0.48	4.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
71-43-2	Benzene	0.48	U	0.37	0.48	4.8	ug/Kg
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.48	4.8	ug/Kg
79-01-6	Trichloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-88-3	Toluene	0.48	U	0.48	0.48	4.8	ug/Kg
127-18-4	Tetrachloroethene	0.48	U	0.48	0.48	4.8	ug/Kg
108-90-7	Chlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
100-41-4	Ethyl Benzene	0.48	U	0.48	0.48	4.8	ug/Kg
1330-20-7	Total Xylenes	1.45	U	1.18	1.45	14.5	ug/Kg
103-65-1	n-propylbenzene	0.48	U	0.35	0.48	4.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.48	U	0.44	0.48	4.8	ug/Kg
98-06-6	tert-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
135-98-8	sec-Butylbenzene	0.48	U	0.48	0.48	4.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.48	U	0.36	0.48	4.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.48	U	0.4	0.48	4.8	ug/Kg
104-51-8	n-Butylbenzene	0.48	U	0.44	0.48	4.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.48	U	0.48	0.48	4.8	ug/Kg
123-91-1	1,4-Dioxane	96.7	U U	96.7	96.7	96.7	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-16	SDG No.:	E3782
Lab Sample ID:	E3782-01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	5.1
Sample Wt/Vol:	5.45 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038905.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	50.1		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	48.6		67 - 123		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		33 - 141		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1414400	6.53				
540-36-3	1,4-Difluorobenzene	2028380	7.64				
3114-55-4	Chlorobenzene-d5	2267400	11.82				
3855-82-1	1,4-Dichlorobenzene-d4	1331720	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-17	SDG No.:	E3782
Lab Sample ID:	E3782-02	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	5.6
Sample Wt/Vol:	5.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038906.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.45	U	0.45	0.45	4.5	ug/Kg
75-35-4	1,1-Dichloroethene	0.45	U	0.45	0.45	4.5	ug/Kg
67-64-1	Acetone	8.6	J J	2.2	2.2	22.3	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.45	U	0.45	0.45	4.5	ug/Kg
75-09-2	Methylene Chloride	1.9	U JB	0.45	0.45	4.5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.45	U	0.45	0.45	4.5	ug/Kg
75-34-3	1,1-Dichloroethane	0.45	U	0.45	0.45	4.5	ug/Kg
78-93-3	2-Butanone	6.7	U	2.8	6.7	22.3	ug/Kg
56-23-5	Carbon Tetrachloride	0.45	U	0.45	0.45	4.5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.45	U	0.45	0.45	4.5	ug/Kg
67-66-3	Chloroform	0.45	U	0.45	0.45	4.5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.45	U	0.45	0.45	4.5	ug/Kg
71-43-2	Benzene	0.45	U	0.34	0.45	4.5	ug/Kg
107-06-2	1,2-Dichloroethane	0.45	U	0.45	0.45	4.5	ug/Kg
79-01-6	Trichloroethene	0.45	U	0.45	0.45	4.5	ug/Kg
108-88-3	Toluene	0.45	U	0.45	0.45	4.5	ug/Kg
127-18-4	Tetrachloroethene	0.45	U	0.45	0.45	4.5	ug/Kg
108-90-7	Chlorobenzene	0.45	U	0.45	0.45	4.5	ug/Kg
100-41-4	Ethyl Benzene	0.45	U	0.45	0.45	4.5	ug/Kg
1330-20-7	Total Xylenes	1.34	U	1.09	1.34	13.4	ug/Kg
103-65-1	n-propylbenzene	0.45	U	0.32	0.45	4.5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.45	U	0.4	0.45	4.5	ug/Kg
98-06-6	tert-Butylbenzene	0.45	U	0.45	0.45	4.5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.45	U	0.45	0.45	4.5	ug/Kg
135-98-8	sec-Butylbenzene	0.45	U	0.45	0.45	4.5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.45	U	0.33	0.45	4.5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.45	U	0.37	0.45	4.5	ug/Kg
104-51-8	n-Butylbenzene	0.45	U	0.41	0.45	4.5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.45	4.5	ug/Kg
123-91-1	1,4-Dioxane	89.2	UJ U	89.2	89.2	89.2	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-17	SDG No.:	E3782
Lab Sample ID:	E3782-02	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	5.6
Sample Wt/Vol:	5.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038906.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	50.1		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		57 - 135		103%	SPK: 50
2037-26-5	Toluene-d8	50.3		67 - 123		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		33 - 141		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1376820	6.53				
540-36-3	1,4-Difluorobenzene	1950670	7.65				
3114-55-4	Chlorobenzene-d5	2121660	11.82				
3855-82-1	1,4-Dichlorobenzene-d4	1199450	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-18	SDG No.:	E3782
Lab Sample ID:	E3782-03	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	8.4
Sample Wt/Vol:	5.75 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038907.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.47	U	0.47	0.47	4.7	ug/Kg
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
67-64-1	Acetone	59.6	J	2.4	2.4	23.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.47	U	0.47	0.47	4.7	ug/Kg
75-09-2	Methylene Chloride	~~1.8~~ 4.7	~~U~~ JB	0.47	0.47	4.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
75-34-3	1,1-Dichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
78-93-3	2-Butanone	7.1	U	3	7.1	23.7	ug/Kg
56-23-5	Carbon Tetrachloride	0.47	U	0.47	0.47	4.7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
67-66-3	Chloroform	0.47	U	0.47	0.47	4.7	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
71-43-2	Benzene	0.47	U	0.36	0.47	4.7	ug/Kg
107-06-2	1,2-Dichloroethane	0.47	U	0.47	0.47	4.7	ug/Kg
79-01-6	Trichloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
108-88-3	Toluene	0.47	U	0.47	0.47	4.7	ug/Kg
127-18-4	Tetrachloroethene	0.47	U	0.47	0.47	4.7	ug/Kg
108-90-7	Chlorobenzene	0.47	U	0.47	0.47	4.7	ug/Kg
100-41-4	Ethyl Benzene	0.47	U	0.47	0.47	4.7	ug/Kg
1330-20-7	Total Xylenes	1.42	U	1.15	1.42	14.2	ug/Kg
103-65-1	n-propylbenzene	0.47	U	0.34	0.47	4.7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.47	U	0.43	0.47	4.7	ug/Kg
98-06-6	tert-Butylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
135-98-8	sec-Butylbenzene	0.47	U	0.47	0.47	4.7	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.47	U	0.35	0.47	4.7	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.47	U	0.39	0.47	4.7	ug/Kg
104-51-8	n-Butylbenzene	0.47	U	0.44	0.47	4.7	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.47	U	0.47	0.47	4.7	ug/Kg
123-91-1	1,4-Dioxane	94.9	U	94.9	94.9	94.9	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-D-18	SDG No.:	E3782
Lab Sample ID:	E3782-03	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	8.4
Sample Wt/Vol:	5.75 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD038907.D	1		09/23/13	VD092313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	52		56 - 120		104%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		57 - 135		104%	SPK: 50
2037-26-5	Toluene-d8	50.5		67 - 123		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	53		33 - 141		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1350570	6.52				
540-36-3	1,4-Difluorobenzene	1932410	7.64				
3114-55-4	Chlorobenzene-d5	2196200	11.82				
3855-82-1	1,4-Dichlorobenzene-d4	1253190	14.18				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	TB-004	SDG No.:	E3782
Lab Sample ID:	E3782-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG047341.D	1		09/20/13	VG092013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	5	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	5	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	25	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	5	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	5	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	25	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	5	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	0.75	U	0.4	0.75	5	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	5	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.48	0.75	5	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	5	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	5	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	5	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	5	ug/L
1330-20-7	Total Xylenes	1.5	U	1.38	1.5	15	ug/L
103-65-1	n-propylbenzene	0.5	U	0.45	0.5	5	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.46	0.5	5	ug/L
98-06-6	tert-Butylbenzene	0.5	U	0.44	0.5	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.38	0.5	5	ug/L
135-98-8	sec-Butylbenzene	0.5	U	0.46	0.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	5	ug/L
104-51-8	n-Butylbenzene	0.5	U	0.41	0.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	TB-004	SDG No.:	E3782
Lab Sample ID:	E3782-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG047341.D	1		09/20/13	VG092013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	44.9		61 - 141		90%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	47.7		65 - 126		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1161300	5.26				
540-36-3	1,4-Difluorobenzene	1726900	6.02				
3114-55-4	Chlorobenzene-d5	1620040	10.74				
3855-82-1	1,4-Dichlorobenzene-d4	818447	14.21				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Surrogate Summary

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3781-06MS	JEBS-PE-020MS	1,2-Dichloroethane-d4	50	49.41	99		55	158
		Dibromofluoromethane	50	45.84	92		53	156
		Toluene-d8	50	46.18	92		85	115
		4-Bromofluorobenzene	50	48.8	98		85	120
E3781-07MSD	JEBS-PE-020MSD	1,2-Dichloroethane-d4	50	48.24	96		55	158
		Dibromofluoromethane	50	48.88	98		53	156
		Toluene-d8	50	47.53	95		85	115
		4-Bromofluorobenzene	50	52.07	104		85	120
E3782-01	CS-D-16	1,2-Dichloroethane-d4	50	50.09	100		56	120
		Dibromofluoromethane	50	48.92	98		57	135
		Toluene-d8	50	48.6	97		67	123
		4-Bromofluorobenzene	50	51.61	103		33	141
E3782-02	CS-D-17	1,2-Dichloroethane-d4	50	50.07	100		56	120
		Dibromofluoromethane	50	51.64	103		57	135
		Toluene-d8	50	50.31	101		67	123
		4-Bromofluorobenzene	50	51.1	102		33	141
E3782-03	CS-D-18	1,2-Dichloroethane-d4	50	51.96	104		56	120
		Dibromofluoromethane	50	51.9	104		57	135
		Toluene-d8	50	50.52	101		67	123
		4-Bromofluorobenzene	50	53.02	106		33	141
E3782-05	TB-004	1,2-Dichloroethane-d4	50	44.93	90		61	141
		Dibromofluoromethane	50	48.84	98		69	133
		Toluene-d8	50	47.72	95		65	126
		4-Bromofluorobenzene	50	49.06	98		58	135
E3784-10MS	MW-28-11-9-13MS	1,2-Dichloroethane-d4	50	52.07	104		70	120
		Dibromofluoromethane	50	51.31	103		85	115
		Toluene-d8	50	51.27	103		85	120
		4-Bromofluorobenzene	50	53.21	106		75	120
E3784-11MSD	MW-28-11-9-13MSD	1,2-Dichloroethane-d4	50	54.61	109		70	120
		Dibromofluoromethane	50	53.74	107		85	115
		Toluene-d8	50	53.92	108		85	120
		4-Bromofluorobenzene	50	54.51	109		75	120
VD0923SBL01	VD0923SBL01	1,2-Dichloroethane-d4	50	47.63	95		55	158
		Dibromofluoromethane	50	48.68	97		53	156
		Toluene-d8	50	47.91	96		85	115
		4-Bromofluorobenzene	50	54.5	109		85	120
VD0923SBS01	VD0923SBS01	1,2-Dichloroethane-d4	50	48.54	97		55	158
		Dibromofluoromethane	50	50.04	100		53	156
		Toluene-d8	50	48.39	97		85	115
		4-Bromofluorobenzene	50	55.18	110		85	120
VG0920WBL01	VG0920WBL01	1,2-Dichloroethane-d4	50	43.23	86		70	120
		Dibromofluoromethane	50	47.87	96		85	115
		Toluene-d8	50	49.11	98		85	120
		4-Bromofluorobenzene	50	49.66	99		75	120
VG0920WBS01	VG0920WBS01	1,2-Dichloroethane-d4	50	47.61	95		70	120
		Dibromofluoromethane	50	51.34	103		85	115
		Toluene-d8	50	51.4	103		85	120
		4-Bromofluorobenzene	50	51.67	103		75	120

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

DG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3781-06MS	**Client Sample ID : JEBS-PE-020MS**							**Datafile :** VD038911.D			
Vinyl chloride	39.3	0	37.2	ug/Kg	95				60	125	
1,1-Dichloroethene	39.3	0	37.9	ug/Kg	96				65	135	
Acetone	200	0	210	ug/Kg	105				20	160	
Methyl tert-butyl Ether	39.3	0	42.1	ug/Kg	107				70	131	
Methylene Chloride	39.3	2.6	40.1	ug/Kg	95				55	140	
trans-1,2-Dichloroethene	39.3	0	37.3	ug/Kg	95				65	135	
1,1-Dichloroethane	39.3	0	40.8	ug/Kg	104				75	125	
2-Butanone	200	0	170	ug/Kg	85				30	160	
Carbon Tetrachloride	39.3	0	43	ug/Kg	109				65	135	
cis-1,2-Dichloroethene	39.3	58.8	95.8	ug/Kg	94				65	125	
Chloroform	39.3	0	42.9	ug/Kg	109				70	125	
1,1,1-Trichloroethane	39.3	0	45.5	ug/Kg	116				70	135	
Benzene	39.3	0	38.9	ug/Kg	99				75	125	
1,2-Dichloroethane	39.3	0	42.1	ug/Kg	107				70	135	
Trichloroethene	39.3	73.5	110	ug/Kg	93				75	125	
Toluene	39.3	0	44.3	ug/Kg	113				70	125	
Tetrachloroethene	39.3	0	42.7	ug/Kg	109				65	140	
Chlorobenzene	39.3	0	40	ug/Kg	102				75	125	
Ethyl Benzene	39.3	0	42.7	ug/Kg	109				75	125	
m/p-Xylenes	78.5	0	78.6	ug/Kg	100				80	125	
o-Xylene	39.3	0	41.5	ug/Kg	106				75	125	
N-propylbenzene	39.3	0	45.3	ug/Kg	115				65	135	
1,3,5-Trimethylbenzene	39.3	0	43.9	ug/Kg	112				65	135	
tert-Butylbenzene	39.3	0	44.2	ug/Kg	112				65	130	
1,2,4-Trimethylbenzene	39.3	0	44.4	ug/Kg	113				65	135	
Sec-butylbenzene	39.3	0	44	ug/Kg	112				65	130	
1,3-Dichlorobenzene	39.3	0	41.6	ug/Kg	106				70	125	
1,4-Dichlorobenzene	39.3	0	41	ug/Kg	104				70	125	
n-Butylbenzene	39.3	0	43.7	ug/Kg	111				65	140	
1,2-Dichlorobenzene	39.3	0	42	ug/Kg	107				75	120	
1,4-Dioxane	790	0	500	ug/Kg	63				50	150	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

OG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3781-07MSD	**Client Sample ID :** JEBS-PE-020MSD						**Datafile :** VD038912.D				
Vinyl chloride	42.3	0	36.1	ug/Kg	85		10		60	125	20
1,1-Dichloroethene	42.3	0	38.4	ug/Kg	91		6		65	135	20
Acetone	210	0	210	ug/Kg	100		5		20	160	20
Methyl tert-butyl Ether	42.3	0	41.8	ug/Kg	99		8		70	131	20
Methylene Chloride	42.3	2.6	39.8	ug/Kg	88		8		55	140	20
trans-1,2-Dichloroethene	42.3	0	39.1	ug/Kg	92		3		65	135	20
1,1-Dichloroethane	42.3	0	42.7	ug/Kg	101		3		75	125	20
2-Butanone	210	0	180	ug/Kg	86		1		30	160	20
Carbon Tetrachloride	42.3	0	48.6	ug/Kg	115		5		65	135	20
cis-1,2-Dichloroethene	42.3	58.8	91.2	ug/Kg	77		12		65	125	20
Chloroform	42.3	0	44.7	ug/Kg	106		3		70	125	20
1,1,1-Trichloroethane	42.3	0	45.9	ug/Kg	109		6		70	135	20
Benzene	42.3	0	41.3	ug/Kg	98		1		75	125	20
1,2-Dichloroethane	42.3	0	46.4	ug/Kg	110		2		70	135	20
Trichloroethene	42.3	73.5	99.3	ug/Kg	61	*	18		75	125	20
Toluene	42.3	0	46.8	ug/Kg	111		2		70	125	20
Tetrachloroethene	42.3	0	45.8	ug/Kg	108		0		65	140	20
Chlorobenzene	42.3	0	43.5	ug/Kg	103		1		75	125	20
Ethyl Benzene	42.3	0	45.7	ug/Kg	108		1		75	125	20
m/p-Xylenes	84.6	0	84.4	ug/Kg	100		0		80	125	20
o-Xylene	42.3	0	44.4	ug/Kg	105		1		75	125	20
N-propylbenzene	42.3	0	47.3	ug/Kg	112		3		65	135	20
1,3,5-Trimethylbenzene	42.3	0	46.3	ug/Kg	109		2		65	135	20
tert-Butylbenzene	42.3	0	45.8	ug/Kg	108		4		65	130	20
1,2,4-Trimethylbenzene	42.3	0	47.3	ug/Kg	112		1		65	135	20
Sec-butylbenzene	42.3	0	45.9	ug/Kg	109		3		65	130	20
1,3-Dichlorobenzene	42.3	0	43.5	ug/Kg	103		3		70	125	20
1,4-Dichlorobenzene	42.3	0	43.3	ug/Kg	102		2		70	125	20
n-Butylbenzene	42.3	0	46.9	ug/Kg	111		0		65	140	20
1,2-Dichlorobenzene	42.3	0	43.8	ug/Kg	104		3		75	120	20
1,4-Dioxane	850	0	530	ug/Kg	62		1		50	150	20

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

DG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3784-10MS	**Client Sample ID :** MW-28-11-9-13MS						**Datafile :** VG047355.D				
Vinyl chloride	50	0	44.4	ug/L	89				50	145	
1,1-Dichloroethene	50	0	41.8	ug/L	84				70	130	
Acetone	250	0	200	ug/L	80				40	140	
Methyl tert-butyl Ether	50	2	44.6	ug/L	85				65	125	
Methylene Chloride	50	0	46.3	ug/L	93				55	140	
trans-1,2-Dichloroethene	50	0	42	ug/L	84				60	140	
1,1-Dichloroethane	50	0	45.3	ug/L	91				70	135	
2-Butanone	250	0	210	ug/L	84				30	150	
Carbon Tetrachloride	50	0	43.9	ug/L	88				65	140	
cis-1,2-Dichloroethene	50	0	44.2	ug/L	88				70	125	
Chloroform	50	0	43.1	ug/L	86				65	135	
1,1,1-Trichloroethane	50	0	43.5	ug/L	87				65	130	
Benzene	50	0	43.5	ug/L	87				80	120	
1,2-Dichloroethane	50	0	39.8	ug/L	80				70	130	
Trichloroethene	50	0	41.6	ug/L	83				70	125	
Toluene	50	0	43.9	ug/L	88				75	120	
Tetrachloroethene	50	0	39.4	ug/L	79				45	150	
Chlorobenzene	50	0	42	ug/L	84				80	120	
Ethyl Benzene	50	0	42.4	ug/L	85				75	125	
m/p-Xylenes	100	0	83.2	ug/L	83				75	130	
o-Xylene	50	0	43.1	ug/L	86				80	120	
N-propylbenzene	50	0	44.1	ug/L	88				70	130	
1,3,5-Trimethylbenzene	50	0	42.8	ug/L	86				75	130	
tert-Butylbenzene	50	0	43	ug/L	86				70	130	
1,2,4-Trimethylbenzene	50	0	43.1	ug/L	86				75	130	
Sec-butylbenzene	50	0.78	43.7	ug/L	86				70	125	
1,3-Dichlorobenzene	50	0	42.1	ug/L	84				75	125	
1,4-Dichlorobenzene	50	0	41.5	ug/L	83				75	125	
n-Butylbenzene	50	0	44.5	ug/L	89				70	135	
1,2-Dichlorobenzene	50	0	41.5	ug/L	83				70	120	
1,4-Dioxane	1000	0	910	ug/L	91				50	150	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

)G No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3784-11MSD	**Client Sample ID :**	MW-28-I1-9-13MSD					**Datafile :**	VG047356.D			
Vinyl chloride	50	0	60.2	ug/L	120		30	*	50	145	20
1,1-Dichloroethene	50	0	55	ug/L	110		27	*	70	130	20
Acetone	250	0	270	ug/L	108		30	*	40	140	20
Methyl tert-butyl Ether	50	2	60.4	ug/L	117		30	*	65	125	20
Methylene Chloride	50	0	58.7	ug/L	117		24	*	55	140	20
trans-1,2-Dichloroethene	50	0	55.8	ug/L	112		28	*	60	140	20
1,1-Dichloroethane	50	0	59.2	ug/L	118		27	*	70	135	20
2-Butanone	250	0	290	ug/L	116		32	*	30	150	20
Carbon Tetrachloride	50	0	55.5	ug/L	111		23	*	65	140	20
cis-1,2-Dichloroethene	50	0	59.3	ug/L	119		29	*	70	125	20
Chloroform	50	0	56.4	ug/L	113		27	*	65	135	20
1,1,1-Trichloroethane	50	0	59.5	ug/L	119		31	*	65	130	20
Benzene	50	0	57	ug/L	114		27	*	80	120	20
1,2-Dichloroethane	50	0	54.6	ug/L	109		31	*	70	130	20
Trichloroethene	50	0	55.1	ug/L	110		28	*	70	125	20
Toluene	50	0	56.6	ug/L	113		25	*	75	120	20
Tetrachloroethene	50	0	51.5	ug/L	103		27	*	45	150	20
Chlorobenzene	50	0	55	ug/L	110		27	*	80	120	20
Ethyl Benzene	50	0	55.8	ug/L	112		27	*	75	125	20
m/p-Xylenes	100	0	110	ug/L	110		28	*	75	130	20
o-Xylene	50	0	55.9	ug/L	112		26	*	80	120	20
N-propylbenzene	50	0	57.1	ug/L	114		26	*	70	130	20
1,3,5-Trimethylbenzene	50	0	56.4	ug/L	113		27	*	75	130	20
tert-Butylbenzene	50	0	55.8	ug/L	112		26	*	70	130	20
1,2,4-Trimethylbenzene	50	0	57.3	ug/L	115		28	*	75	130	20
Sec-butylbenzene	50	0.78	57.5	ug/L	113		27	*	70	125	20
1,3-Dichlorobenzene	50	0	55.5	ug/L	111		27	*	75	125	20
1,4-Dichlorobenzene	50	0	56.4	ug/L	113		30	*	75	125	20
n-Butylbenzene	50	0	56.2	ug/L	112		23	*	70	135	20
1,2-Dichlorobenzene	50	0	56.1	ug/L	112		30	*	70	120	20
1,4-Dioxane	1000	0	1300	ug/L	130		35	*	50	150	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VD038891.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0923SBS01	Vinyl chloride	20	17.7	ug/Kg	89			60	125	
	1,1-Dichloroethene	20	18.8	ug/Kg	94			65	135	
	Acetone	100	110	ug/Kg	110			20	160	
	Methyl tert-butyl Ether	20	20.7	ug/Kg	104			70	131	
	Methylene Chloride	20	22.7	ug/Kg	114			55	140	
	trans-1,2-Dichloroethene	20	18.5	ug/Kg	93			65	135	
	1,1-Dichloroethane	20	18.4	ug/Kg	92			75	125	
	2-Butanone	100	94	ug/Kg	94			30	160	
	Carbon Tetrachloride	20	21.4	ug/Kg	107			65	135	
	cis-1,2-Dichloroethene	20	19.5	ug/Kg	98			65	125	
	Chloroform	20	20.4	ug/Kg	102			70	125	
	1,1,1-Trichloroethane	20	20.8	ug/Kg	104			70	135	
	Benzene	20	18.9	ug/Kg	95			75	125	
	1,2-Dichloroethane	20	22.2	ug/Kg	111			70	135	
	Trichloroethene	20	20.3	ug/Kg	102			75	125	
	Toluene	20	20.6	ug/Kg	103			70	125	
	Tetrachloroethene	20	19.3	ug/Kg	97			65	140	
	Chlorobenzene	20	20.4	ug/Kg	102			75	125	
	Ethyl Benzene	20	22.1	ug/Kg	111			75	125	
	m/p-Xylenes	40	41.7	ug/Kg	104			80	125	
	o-Xylene	20	21.1	ug/Kg	106			75	125	
	N-propylbenzene	20	19.5	ug/Kg	98			65	135	
	1,3,5-Trimethylbenzene	20	21.3	ug/Kg	106			65	135	
	tert-Butylbenzene	20	20.7	ug/Kg	104			65	130	
	1,2,4-Trimethylbenzene	20	21.2	ug/Kg	106			65	135	
	Sec-butylbenzene	20	19.6	ug/Kg	98			65	130	
	1,3-Dichlorobenzene	20	20.2	ug/Kg	101			70	125	
	1,4-Dichlorobenzene	20	20.6	ug/Kg	103			70	125	
	n-Butylbenzene	20	21.8	ug/Kg	109			65	140	
	1,2-Dichlorobenzene	20	20.8	ug/Kg	104			75	120	
	1,4-Dioxane	400	320	ug/Kg	80			50	150	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VG047338.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VG0920WBS01	Vinyl chloride	20	20.4	ug/L	102			50	145	
	1,1-Dichloroethene	20	21	ug/L	105			70	130	
	Acetone	100	100	ug/L	100			40	140	
	Methyl tert-butyl Ether	20	20.7	ug/L	104			65	125	
	Methylene Chloride	20	21.9	ug/L	110			55	140	
	trans-1,2-Dichloroethene	20	20.5	ug/L	103			60	140	
	1,1-Dichloroethane	20	21.2	ug/L	106			70	135	
	2-Butanone	100	110	ug/L	110			30	150	
	Carbon Tetrachloride	20	21.5	ug/L	108			65	140	
	cis-1,2-Dichloroethene	20	20.2	ug/L	101			70	125	
	Chloroform	20	19.3	ug/L	97			65	135	
	1,1,1-Trichloroethane	20	20.2	ug/L	101			65	130	
	Benzene	20	21	ug/L	105			80	120	
	1,2-Dichloroethane	20	19.9	ug/L	100			70	130	
	Trichloroethene	20	21	ug/L	105			70	125	
	Toluene	20	21.3	ug/L	106			75	120	
	Tetrachloroethene	20	19.7	ug/L	99			45	150	
	Chlorobenzene	20	21.3	ug/L	106			80	120	
	Ethyl Benzene	20	21.8	ug/L	109			75	125	
	m/p-Xylenes	40	41.7	ug/L	104			75	130	
	o-Xylene	20	21.9	ug/L	110			80	120	
	N-propylbenzene	20	22	ug/L	110			70	130	
	1,3,5-Trimethylbenzene	20	21.7	ug/L	109			75	130	
	tert-Butylbenzene	20	23	ug/L	115			70	130	
	1,2,4-Trimethylbenzene	20	22.3	ug/L	112			75	130	
	Sec-butylbenzene	20	22.4	ug/L	112			70	125	
	1,3-Dichlorobenzene	20	22.6	ug/L	113			75	125	
	1,4-Dichlorobenzene	20	20.8	ug/L	104			75	125	
	n-Butylbenzene	20	21.9	ug/L	110			70	135	
	1,2-Dichlorobenzene	20	21.4	ug/L	107			70	120	
	1,4-Dioxane	400	390	ug/L	98			50	150	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0923SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VD038890.D Lab Sample ID: VD0923SBL01

Date Analyzed: 09/23/2013 Time Analyzed: 12:48

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0923SBS01	VD0923SBS01	VD038891.D	09/23/2013
CS-D-16	E3782-01	VD038905.D	09/23/2013
CS-D-17	E3782-02	VD038906.D	09/23/2013
CS-D-18	E3782-03	VD038907.D	09/23/2013
JEBS-PE-020MS	E3781-06MS	VD038911.D	09/23/2013
JEBS-PE-020MSD	E3781-07MSD	VD038912.D	09/23/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VG0920WBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VG047337.D Lab Sample ID: VG0920WBL01

Date Analyzed: 09/20/2013 Time Analyzed: 19:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VG0920WBS01	VG0920WBS01	VG047338.D	09/20/2013
TB-004	E3782-05	VG047341.D	09/20/2013
MW-28-I1-9-13MS	E3784-10MS	VG047355.D	09/21/2013
MW-28-I1-9-13MSD	E3784-11MSD	VG047356.D	09/21/2013

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VD038655.D BFB Injection Date: 09/05/2013

Instrument ID: MSVOA_D BFB Injection Time: 14:49

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	84.2
175	5.0 - 9.0% of mass 174	6.1 (7.2) 1
176	95.0 - 101.0% of mass 174	83.2 (98.8) 1
177	5.0 - 9.0% of mass 176	4.9 (5.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VD038656.D	09/05/2013	15:16
VSTDICC010	VSTDICC010	VD038657.D	09/05/2013	15:43
VSTDICC020	VSTDICC020	VD038658.D	09/05/2013	16:10
VSTDICCC050	VSTDICCC050	VD038659.D	09/05/2013	16:37
VSTDICC100	VSTDICC100	VD038660.D	09/05/2013	17:04
VSTDICC200	VSTDICC200	VD038661.D	09/05/2013	17:31

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VD038888.D BFB Injection Date: 09/23/2013

Instrument ID: MSVOA_D BFB Injection Time: 11:36

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	47.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	81.1
175	5.0 - 9.0% of mass 174	5.8 (7.2) 1
176	95.0 - 101.0% of mass 174	81.3 (100.1) 1
177	5.0 - 9.0% of mass 176	4.5 (5.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD038889.D	09/23/2013	12:11
VD0923SBL01	VD0923SBL01	VD038890.D	09/23/2013	12:48
VD0923SBS01	VD0923SBS01	VD038891.D	09/23/2013	13:24
CS-D-16	E3782-01	VD038905.D	09/23/2013	19:39
CS-D-17	E3782-02	VD038906.D	09/23/2013	20:05
CS-D-18	E3782-03	VD038907.D	09/23/2013	20:33
JEBS-PE-020MS	E3781-06MS	VD038911.D	09/23/2013	22:20
JEBS-PE-020MSD	E3781-07MSD	VD038912.D	09/23/2013	22:47

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VG047326.D BFB Injection Date: 09/20/2013

Instrument ID: MSVOA_G BFB Injection Time: 10:09

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	72.7
175	5.0 - 9.0% of mass 174	6 (8.2) 1
176	95.0 - 101.0% of mass 174	71.9 (98.9) 1
177	5.0 - 9.0% of mass 176	4.6 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VG047327.D	09/20/2013	12:42
VSTDICC020	VSTDICC020	VG047328.D	09/20/2013	13:11
VSTDICCC050	VSTDICCC050	VG047329.D	09/20/2013	13:41
VSTDICC075	VSTDICC075	VG047330.D	09/20/2013	14:10
VSTDICC100	VSTDICC100	VG047331.D	09/20/2013	14:39
VSTDICC150	VSTDICC150	VG047332.D	09/20/2013	15:09

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VG047334.D BFB Injection Date: 09/20/2013

Instrument ID: MSVOA_G BFB Injection Time: 17:42

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	48.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	74.2
175	5.0 - 9.0% of mass 174	5.3 (7.1) 1
176	95.0 - 101.0% of mass 174	72.9 (98.2) 1
177	5.0 - 9.0% of mass 176	5.2 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VG047336.D	09/20/2013	18:58
VG0920WBL01	VG0920WBL01	VG047337.D	09/20/2013	19:45
VG0920WBS01	VG0920WBS01	VG047338.D	09/20/2013	20:24
TB-004	E3782-05	VG047341.D	09/20/2013	21:52
MW-28-I1-9-13MS	E3784-10MS	VG047355.D	09/21/2013	04:44
MW-28-I1-9-13MSD	E3784-11MSD	VG047356.D	09/21/2013	05:13

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VD038889.D Date Analyzed: 09/23/2013

Instrument ID: MSVOA_D Time Analyzed: 12:11

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1721230	6.52	2490680	7.65	2766020	11.82
UPPER LIMIT	3442450	7.02	4981370	8.15	5532040	12.32
LOWER LIMIT	860613	6.02	1245340	7.15	1383010	11.32
EPA SAMPLE NO.						
JEBS-PE-020MS	1481600	6.52	2302600	7.65	2489390	11.82
JEBS-PE-020MSD	1605160	6.53	2312180	7.64	2556680	11.82
CS-D-16	1414400	6.53	2028380	7.64	2267400	11.82
CS-D-17	1376820	6.53	1950670	7.65	2121660	11.82
CS-D-18	1350570	6.52	1932410	7.64	2196200	11.82
VD0923SBL01	1913170	6.52	2720480	7.65	3037610	11.82
VD0923SBS01	1807540	6.53	2598540	7.64	2957520	11.82

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VD038889.D Date Analyzed: 09/23/2013

Instrument ID: MSVOA_D Time Analyzed: 12:11

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	1518150	14.18				
UPPER LIMIT	3036300	14.68				
LOWER LIMIT	759075	13.68				
EPA SAMPLE NO.						
JEBS-PE-020MS	1351800	14.18				
JEBS-PE-020MSD	1414830	14.18				
CS-D-16	1331720	14.18				
CS-D-17	1199450	14.18				
CS-D-18	1253190	14.18				
VD0923SBL01	1822580	14.18				
VD0923SBS01	1710470	14.18				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VG047336.D Date Analyzed: 09/20/2013

Instrument ID: MSVOA_G Time Analyzed: 18:58

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1286360	5.26	1892670	6.03	1759210	10.74
UPPER LIMIT	2572720	5.76	3785340	6.53	3518430	11.24
LOWER LIMIT	643180	4.76	946334	5.53	879607	10.24
EPA SAMPLE NO.						
TB-004	1161300	5.26	1726900	6.02	1620040	10.74
MW-28-I1-9-13MS	1441700	5.28	2273320	6.05	2173260	10.75
MW-28-I1-9-13MSD	1310990	5.28	2093310	6.04	1971110	10.75
VG0920WBL01	1248000	5.26	1813460	6.03	1730400	10.73
VG0920WBS01	1461340	5.26	2166380	6.02	2042130	10.74

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: VG047336.D Date Analyzed: 09/20/2013

Instrument ID: MSVOA_G Time Analyzed: 18:58

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	895503	14.2				
UPPER LIMIT	1791010	14.7				
LOWER LIMIT	447752	13.7				
EPA SAMPLE NO.						
TB-004	818447	14.21				
MW-28-I1-9-13MS	1083720	14.21				
MW-28-I1-9-13MSD	963859	14.21				
VG0920WBL01	869771	14.20				
VG0920WBS01	1020960	14.20				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	5.6
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF065674.D	1	09/20/13	09/21/13	PB72372

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.2	U	8.1	35.2	350	ug/Kg
95-48-7	2-Methylphenol	35.2	U	19.1	35.2	350	ug/Kg
65794-96-9	3+4-Methylphenols	35.2	U	18.3	35.2	350	ug/Kg
91-20-3	Naphthalene	35.2	U	12.1	35.2	350	ug/Kg
208-96-8	Acenaphthylene	35.2	U	8.9	35.2	350	ug/Kg
83-32-9	Acenaphthene	35.2	U	9.9	35.2	350	ug/Kg
132-64-9	Dibenzofuran	35.2	U	13.7	35.2	350	ug/Kg
86-73-7	Fluorene	35.2	U	13.3	35.2	350	ug/Kg
118-74-1	Hexachlorobenzene	35.2	U	14.4	35.2	350	ug/Kg
87-86-5	Pentachlorophenol	35.2	U	24.1	35.2	350	ug/Kg
85-01-8	Phenanthrene	35.2	U	9.5	35.2	350	ug/Kg
120-12-7	Anthracene	35.2	U	7.2	35.2	350	ug/Kg
206-44-0	Fluoranthene	35.2	U	7.1	35.2	350	ug/Kg
129-00-0	Pyrene	35.2	U	8.4	35.2	350	ug/Kg
56-55-3	Benzo(a)anthracene	35.2	U	16.8	35.2	350	ug/Kg
218-01-9	Chrysene	35.2	U	15.9	35.2	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.2	U	11.5	35.2	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.2	U	16.6	35.2	350	ug/Kg
50-32-8	Benzo(a)pyrene	35.2	U	7.6	35.2	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.2	U	11.7	35.2	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.2	U	10.1	35.2	350	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.2	U	14.3	35.2	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	110		28 - 127		74%	SPK: 150
13127-88-3	Phenol-d6	110		34 - 127		76%	SPK: 150
4165-60-0	Nitrobenzene-d5	62.8		31 - 132		63%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.9		39 - 123		81%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.9		30 - 133		66%	SPK: 150
1718-51-0	Terphenyl-d14	73.1		37 - 115		73%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	62027	5.72				

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	5.6
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF065674.D	1	09/20/13	09/21/13	PB72372

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	276318	6.97				
15067-26-2	Acenaphthene-d10	148094	8.71				
1517-22-2	Phenanthrene-d10	239568	10.18				
1719-03-5	Chrysene-d12	204092	12.8				
520-96-3	Perylene-d12	203367	14.13				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Surrogate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E3762-01MS	SB01091713(14-16)MS	2-Fluorophenol	150	119.29	80		28	127
		Phenol-d6	150	113.79	76		34	127
		Nitrobenzene-d5	100	86.54	87		31	132
		2-Fluorobiphenyl	100	81.54	82		39	123
		2,4,6-Tribromophenol	150	122.19	81		30	133
		Terphenyl-d14	100	67.98	68		37	115
E3762-01MSD	SB01091713(14-16)MSD	2-Fluorophenol	150	114.99	77		28	127
		Phenol-d6	150	117.97	79		34	127
		Nitrobenzene-d5	100	92.00	92		31	132
		2-Fluorobiphenyl	100	83.96	84		39	123
		2,4,6-Tribromophenol	150	127.91	85		30	133
		Terphenyl-d14	100	71.49	71		37	115
E3782-04	CS-C-07	2-Fluorophenol	150	110.78	74		28	127
		Phenol-d6	150	113.75	76		34	127
		Nitrobenzene-d5	100	62.76	63		31	132
		2-Fluorobiphenyl	100	80.92	81		39	123
		2,4,6-Tribromophenol	150	98.90	66		30	133
		Terphenyl-d14	100	73.14	73		37	115
PB72372BL	PB72372BL	2-Fluorophenol	150	113.22	75		28	127
		Phenol-d6	150	103.90	69		34	127
		Nitrobenzene-d5	100	71.81	72		31	132
		2-Fluorobiphenyl	100	81.63	82		39	123
		2,4,6-Tribromophenol	150	110.97	74		30	133
		Terphenyl-d14	100	82.76	83		37	115
PB72372BS	PB72372BS	2-Fluorophenol	150	99.95	67		28	127
		Phenol-d6	150	94.99	63		34	127
		Nitrobenzene-d5	100	75.80	76		31	132
		2-Fluorobiphenyl	100	77.73	78		39	123
		2,4,6-Tribromophenol	150	116.18	77		30	133
		Terphenyl-d14	100	66.42	66		37	115

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: E3762-01MS	**Client Sample ID:**		**SB01091713(14-16)MS**				**DataFile:**	**BF065656.D**			
Phenol	1800	0	1100	ug/Kg	61				40	115	
2-Methylphenol	1800	0	1600	ug/Kg	89				48	111	
3+4-Methylphenols	1800	0	1500	ug/Kg	83				46	115	
Naphthalene	1800	0	1500	ug/Kg	83				42	121	
Acenaphthylene	1800	0	1400	ug/Kg	78				45	117	
Acenaphthene	1800	0	1500	ug/Kg	83				45	118	
Dibenzofuran	1800	0	1400	ug/Kg	78				45	118	
Fluorene	1800	0	1400	ug/Kg	78				41	121	
Hexachlorobenzene	1800	0	1300	ug/Kg	72				48	114	
Pentachlorophenol	3600	0	2300	ug/Kg	64				15	145	
Phenanthrene	1800	0	1300	ug/Kg	72				29	138	
Anthracene	1800	0	1300	ug/Kg	72				45	120	
Fluoranthene	1800	0	1200	ug/Kg	67				33	133	
Pyrene	1800	0	1300	ug/Kg	72				31	135	
Benzo(a)anthracene	1800	0	1300	ug/Kg	72				35	132	
Chrysene	1800	0	1200	ug/Kg	67				34	131	
Benzo(b)fluoranthene	1800	0	1200	ug/Kg	67				35	128	
Benzo(k)fluoranthene	1800	0	1500	ug/Kg	83				39	117	
Benzo(a)pyrene	1800	0	1300	ug/Kg	72				35	129	
Indeno(1,2,3-cd)pyrene	1800	0	1200	ug/Kg	67				30	140	
Dibenz(a,h)anthracene	1800	0	1300	ug/Kg	72				18	147	
Benzo(g,h,i)perylene	1800	0	1300	ug/Kg	72				31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: E3762-01MSD	**Client Sample ID:**		**SB01091713(14-16)MSD**				**DataFile:**	**BF065657.D**			
Phenol	1800	0	1100	ug/Kg	61		0		40	115	20
2-Methylphenol	1800	0	1700	ug/Kg	94		5		48	111	20
3+4-Methylphenols	1800	0	1700	ug/Kg	94		12		46	115	20
Naphthalene	1800	0	1500	ug/Kg	83		0		42	121	20
Acenaphthylene	1800	0	1600	ug/Kg	89		13		45	117	20
Acenaphthene	1800	0	1600	ug/Kg	89		7		45	118	20
Dibenzofuran	1800	0	1500	ug/Kg	83		6		45	118	20
Fluorene	1800	0	1600	ug/Kg	89		13		41	121	20
Hexachlorobenzene	1800	0	1500	ug/Kg	83		14		48	114	20
Pentachlorophenol	3600	0	2500	ug/Kg	69		8		15	145	20
Phenanthrene	1800	0	1500	ug/Kg	83		14		29	138	20
Anthracene	1800	0	1500	ug/Kg	83		14		45	120	20
Fluoranthene	1800	0	1400	ug/Kg	78		15		33	133	20
Pyrene	1800	0	1400	ug/Kg	78		8		31	135	20
Benzo(a)anthracene	1800	0	1400	ug/Kg	78		8		35	132	20
Chrysene	1800	0	1300	ug/Kg	72		7		34	131	20
Benzo(b)fluoranthene	1800	0	1400	ug/Kg	78		15		35	128	20
Benzo(k)fluoranthene	1800	0	1700	ug/Kg	94		12		39	117	20
Benzo(a)pyrene	1800	0	1500	ug/Kg	83		14		35	129	20
Indeno(1,2,3-cd)pyrene	1800	0	1400	ug/Kg	78		15		30	140	20
Dibenz(a,h)anthracene	1800	0	1500	ug/Kg	83		14		18	147	20
Benzo(g,h,i)perylene	1800	0	1500	ug/Kg	83		14		31	132	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF065653.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Limits Qual	Low	High	RPD
PB72372BS	Phenol	1700	880	ug/Kg	52				51	101	
	2-Methylphenol	1700	1300	ug/Kg	76				49	105	
	3+4-Methylphenols	1700	1200	ug/Kg	71				52	102	
	Naphthalene	1700	1200	ug/Kg	71				53	103	
	Acenaphthylene	1700	1300	ug/Kg	76				57	101	
	Acenaphthene	1700	1300	ug/Kg	76				57	102	
	Dibenzofuran	1700	1200	ug/Kg	71				57	100	
	Fluorene	1700	1300	ug/Kg	76				57	101	
	Hexachlorobenzene	1700	1100	ug/Kg	65				54	106	
	Pentachlorophenol	3300	1800	ug/Kg	55				49	116	
	Phenanthrene	1700	1200	ug/Kg	71				58	101	
	Anthracene	1700	1200	ug/Kg	71				57	102	
	Fluoranthene	1700	1100	ug/Kg	65				56	102	
	Pyrene	1700	1200	ug/Kg	71				56	106	
	Benzo(a)anthracene	1700	1100	ug/Kg	65				56	103	
	Chrysene	1700	1100	ug/Kg	65				58	102	
	Benzo(b)fluoranthene	1700	1100	ug/Kg	65				56	103	
	Benzo(k)fluoranthene	1700	1400	ug/Kg	82				55	102	
	Benzo(a)pyrene	1700	1200	ug/Kg	71				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1100	ug/Kg	65				50	113	
	Dibenz(a,h)anthracene	1700	1200	ug/Kg	71				52	119	
	Benzo(g,h,i)perylene	1700	1200	ug/Kg	71				56	105	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB72372BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab File ID: BF065654.D Lab Sample ID: PB72372BL

Instrument ID: BNA_F Date Extracted: 09/20/2013

Matrix: (soil/water) SOIL Date Analyzed: 09/20/2013

Level: (low/med) LOW Time Analyzed: 16:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
CS-C-07	E3782-04	BF065674.D	09/21/2013
SB01091713(14-16)MS	E3762-01MS	BF065656.D	09/20/2013
SB01091713(14-16)MSD	E3762-01MSD	BF065657.D	09/20/2013
PB72372BS	PB72372BS	BF065653.D	09/20/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3782 SDG NO.: E3782

Lab File ID: BF065575.D DFTPP Injection Date: 09/18/2013

Instrument ID: BNA_F DFTPP Injection Time: 12:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198 30-60	44.3 ✓
68	Less than 2.0% of mass 69	0.6 (1.6) 1
69	Mass 69 relative abundance	38
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198 40-60	47.2
197	Less than 2.0% of mass 198 <1	0.3
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198 10-30	22.5
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	12.4
442	Greater than 50% of mass 198	76.5
443	15.0 - 24.0% of mass 442 17-23	14.8 (19.4) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC080	SSTDICC080	BF065576.D	09/18/2013	12:47
SSTDICC060	SSTDICC060	BF065577.D	09/18/2013	13:12
SSTDICC050	SSTDICC050	BF065578.D	09/18/2013	13:37
SSTDICCC040	SSTDICCC040	BF065579.D	09/18/2013	14:02
SSTDICC025	SSTDICC025	BF065580.D	09/18/2013	14:27
SSTDICC010	SSTDICC010	BF065581.D	09/18/2013	14:53 ✓

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3782 SDG NO.: E3782

Lab File ID: BF065648.D DFTPP Injection Date: 09/20/2013

Instrument ID: BNA_F DFTPP Injection Time: 12:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198 30-60	44.3
68	Less than 2.0% of mass 69	0.7 (1.7) 1
69	Mass 69 relative abundance	40
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198 40-60	47.4
197	Less than 2.0% of mass 198 <1	0.1
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198 10-30	23.9
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	75.8
443	15.0 - 24.0% of mass 442 17-23	14.1 (18.6) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF065649.D	09/20/2013	13:59
PB72372BS	PB72372BS	BF065653.D	09/20/2013	15:39
PB72372BL	PB72372BL	BF065654.D	09/20/2013	16:04
SB01091713(14-16)MS	E3762-01MS	BF065656.D	09/20/2013	16:55
SB01091713(14-16)MSD	E3762-01MSD	BF065657.D	09/20/2013	17:20

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E3782 SDG NO.: E3782

Lab File ID: BF065670.D DFTPP Injection Date: 09/20/2013

Instrument ID: BNA_F DFTPP Injection Time: 23:41

m/e	ION ABUNDANCE CRITERIA		% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30-60	50.6
68	Less than 2.0% of mass 69		0.8 (1.9) 1
69	Mass 69 relative abundance		43.5
70	Less than 2.0% of mass 69		0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40-60	52.7
197	Less than 2.0% of mass 198	<1	0.8
198	Base Peak, 100% relative abundance		100
199	5.0 to 9.0% of mass 198		6.5
275	10.0 - 60.0% of mass 198	10-30	22.8
365	Greater than 1% of mass 198		2.9
441	Present, but less than mass 443		12
442	Greater than 50% of mass 198		73.9
443	15.0 - 24.0% of mass 442	17-23	14.6 (19.8) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF065671.D	09/21/2013	02:12
CS-C-07	E3782-04	BF065674.D	09/21/2013	03:28

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/20/2013

Lab File ID: BF065649.D Time Analyzed: 13:59

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	87977	5.72	373376	6.97	208316	8.71
	UPPER LIMIT	175954	6.22	746752	7.47	416632	9.21
	LOWER LIMIT	43988.5	5.22	186688	6.47	104158	8.21
	EPA SAMPLE NO.						
01	PB72372BS	74561	5.72	308991	6.97	168415	8.71
02	PB72372BL	76628	5.72	332384	6.97	193449	8.71
03	SB01091713(14-16)MSD	74240	5.72	319557	6.97	175401	8.71
04	SB01091713(14-16)MS	70573	5.72	303381	6.97	171030	8.71

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/20/2013

Lab File ID: BF065649.D Time Analyzed: 13:59

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	367271	10.18	337874	12.81	306454	14.13
	UPPER LIMIT	734542	10.68	675748	13.31	612908	14.63
	LOWER LIMIT	183636	9.68	168937	12.31	153227	13.63
	EPA SAMPLE NO.						
01	PB72372BS	303460	10.18	264731	12.81	240612	14.13
02	PB72372BL	323595	10.18	262487	12.81	247391	14.13
03	SB01091713(14-16)MSD	301997	10.18	274551	12.81	251143	14.13
04	SB01091713(14-16)MS	300512	10.18	262037	12.81	249051	14.13

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/21/2013

Lab File ID: BF065671.D Time Analyzed: 02:12

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	84087	5.72	351651	6.97	192920	8.71
	UPPER LIMIT	168174	6.22	703302	7.47	385840	9.21
	LOWER LIMIT	42043.5	5.22	175826	6.47	96460	8.21
	EPA SAMPLE NO.						
01	CS-C-07	62027	5.72	276318	6.97	148094	8.71

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

EPA Sample No.: SSTDCCC040 Date Analyzed: 09/21/2013

Lab File ID: BF065671.D Time Analyzed: 02:12

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	339933	10.18	307155	12.81	284663	14.13
	UPPER LIMIT	679866	10.68	614310	13.31	569326	14.63
	LOWER LIMIT	169967	9.68	153578	12.31	142332	13.63
	EPA SAMPLE NO.						
01	CS-C-07	239568	10.18	204092	12.80	203367	14.13

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	5.6 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL005563.D	1	09/20/13	09/20/13	PB72385

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.349	U	0.137	0.349	1.8	ug/kg
319-85-7	beta-BHC	0.349	U	0.19	0.349	1.8	ug/kg
319-86-8	delta-BHC	0.349	U	0.106	0.349	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.349	U	0.158	0.349	1.8	ug/kg
76-44-8	Heptachlor	0.349	U	0.148	0.349	1.8	ug/kg
309-00-2	Aldrin	0.349	U	0.106	0.349	1.8	ug/kg
959-98-8	Endosulfan I	0.349	U	0.158	0.349	1.8	ug/kg
60-57-1	Dieldrin	0.349	U	0.137	0.349	1.8	ug/kg
72-55-9	4,4-DDE	0.349	U	0.211	0.349	1.8	ug/kg
72-20-8	Endrin	0.349	U	0.19	0.349	1.8	ug/kg
33213-65-9	Endosulfan II	0.349	U	0.148	0.349	1.8	ug/kg
72-54-8	4,4-DDD	0.349	U	0.18	0.349	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.349	U	0.158	0.349	1.8	ug/kg
50-29-3	4,4-DDT	0.349	U	0.148	0.349	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.349	U	0.148	0.349	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	18.9		10 - 169		95%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.1		31 - 151		115%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PL005502.D	PIBLK-PL005502.D	Decachlorobiphenyl	1	20	22.04	110		10	192
		Tetrachloro-m-xylene	1	20	22.31	112		10	172
		Decachlorobiphenyl	2	20	20.09	100		10	192
		Tetrachloro-m-xylene	2	20	19.87	99		10	172
I.BLK-PL005552.D	PIBLK-PL005552.D	Decachlorobiphenyl	1	20	21.73	109		10	192
		Tetrachloro-m-xylene	1	20	22.86	114		10	172
		Decachlorobiphenyl	2	20	21.27	106		10	192
		Tetrachloro-m-xylene	2	20	19.83	99		10	172
PB72385BL	PB72385BL	Decachlorobiphenyl	1	20	20.39	102		10	169
		Tetrachloro-m-xylene	1	20	21.82	109		31	151
		Decachlorobiphenyl	2	20	20.44	102		10	169
		Tetrachloro-m-xylene	2	20	20.26	101		31	151
E3782-04	CS-C-07	Decachlorobiphenyl	1	20	18.94	95		10	169
		Tetrachloro-m-xylene	1	20	23.09	115		31	151
		Decachlorobiphenyl	2	20	19.54	98		10	169
		Tetrachloro-m-xylene	2	20	22.36	112		31	151
E3782-04MS	CS-C-07MS	Decachlorobiphenyl	1	20	19.35	97		10	169
		Tetrachloro-m-xylene	1	20	26.22	131		31	151
		Decachlorobiphenyl	2	20	19.49	97		10	169
		Tetrachloro-m-xylene	2	20	22.32	112		31	151
E3782-04MSD	CS-C-07MSD	Decachlorobiphenyl	1	20	18.92	95		10	169
		Tetrachloro-m-xylene	1	20	25.44	127		31	151
		Decachlorobiphenyl	2	20	19.86	99		10	169
		Tetrachloro-m-xylene	2	20	20.75	104		31	151
I.BLK-PL005566.D	PIBLK-PL005566.D	Decachlorobiphenyl	1	20	21.68	108		10	192
		Tetrachloro-m-xylene	1	20	24.11	121		10	172
		Decachlorobiphenyl	2	20	22.31	112		10	192
		Tetrachloro-m-xylene	2	20	22.44	112		10	172
I.BLK-PL005569.D	PIBLK-PL005569.D	Decachlorobiphenyl	1	20	21.88	109		10	192
		Tetrachloro-m-xylene	1	20	22.69	113		10	172
		Decachlorobiphenyl	2	20	20.52	103		10	192
		Tetrachloro-m-xylene	2	20	19.36	97		10	172
PB72385BS	PB72385BS	Decachlorobiphenyl	1	20	18.98	95		10	169
		Tetrachloro-m-xylene	1	20	20.34	102		31	151
		Decachlorobiphenyl	2	20	18.34	92		10	169
		Tetrachloro-m-xylene	2	20	19.63	98		31	151
I.BLK-PL005573.D	PIBLK-PL005573.D	Decachlorobiphenyl	1	20	22.06	110		10	192
		Tetrachloro-m-xylene	1	20	22.32	112		10	172
		Decachlorobiphenyl	2	20	22.06	110		10	192
		Tetrachloro-m-xylene	2	20	21.91	110		10	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL005564.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CS-C-07MS**											
E3782-04MS	alpha-BHC	17.6	0	20.1	ug/kg	114				16	147	
	beta-BHC	17.6	0	21.8	ug/kg	124				25	146	
	delta-BHC	17.6	0	13.7	ug/kg	78				11	146	
	gamma-BHC (Lindane)	17.6	0	21.3	ug/kg	121				21	147	
	Heptachlor	17.6	0	22.4	ug/kg	127				23	143	
	Aldrin	17.6	0	21.7	ug/kg	123				11	152	
	Endosulfan I	17.6	0	20.8	ug/kg	118				10	164	
	Dieldrin	17.6	0	21.6	ug/kg	123				10	162	
	4,4-DDE	17.6	0	21.3	ug/kg	121				10	174	
	Endrin	17.6	0	21.4	ug/kg	122				10	171	
	Endosulfan II	17.6	0	19.2	ug/kg	109				11	146	
	4,4-DDD	17.6	0	19	ug/kg	108				10	150	
	Endosulfan sulfate	17.6	0	19.3	ug/kg	110				10	152	
	4,4-DDT	17.6	0	20	ug/kg	114				10	192	
	alpha-Chlordane	17.6	0	21.2	ug/kg	120				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL005565.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CS-C-07MSD**											
E3782-04MSD	alpha-BHC	17.6	0	19.1	ug/kg	109		4		16	147	20
	beta-BHC	17.6	0	20.4	ug/kg	116		7		25	146	20
	delta-BHC	17.6	0	13.3	ug/kg	76		3		11	146	20
	gamma-BHC (Lindane)	17.6	0	20	ug/kg	114		6		21	147	20
	Heptachlor	17.6	0	21.1	ug/kg	120		6		23	143	20
	Aldrin	17.6	0	20.5	ug/kg	116		6		11	152	20
	Endosulfan I	17.6	0	19.6	ug/kg	111		6		10	164	20
	Dieldrin	17.6	0	20.1	ug/kg	114		8		10	162	20
	4,4-DDE	17.6	0	19.6	ug/kg	111		9		10	174	20
	Endrin	17.6	0	20.5	ug/kg	116		5		10	171	20
	Endosulfan II	17.6	0	18.3	ug/kg	104		5		11	146	20
	4,4-DDD	17.6	0	18	ug/kg	102		6		10	150	20
	Endosulfan sulfate	17.6	0	18.3	ug/kg	104		6		10	152	20
	4,4-DDT	17.6	0	18.9	ug/kg	107		6		10	192	20
	alpha-Chlordane	17.6	0	19.8	ug/kg	112		7		10	157	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PL005572.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB72385BS	alpha-BHC	16.7	15.9	ug/kg	95				84	123	
	beta-BHC	16.7	17.3	ug/kg	104				82	123	
	delta-BHC	16.7	16.6	ug/kg	99				83	126	
	gamma-BHC (Lindane)	16.7	16.9	ug/kg	101				83	125	
	Heptachlor	16.7	18.2	ug/kg	109				83	122	
	Aldrin	16.7	18.2	ug/kg	109				82	124	
	Endosulfan I	16.7	17.2	ug/kg	103				81	124	
	Dieldrin	16.7	17.3	ug/kg	104				85	121	
	4,4-DDE	16.7	16.9	ug/kg	101				81	123	
	Endrin	16.7	17.1	ug/kg	102				76	130	
	Endosulfan II	16.7	16.4	ug/kg	98				80	125	
	4,4-DDD	16.7	17.1	ug/kg	102				80	131	
	Endosulfan sulfate	16.7	15.8	ug/kg	95				81	122	
	4,4-DDT	16.7	16.7	ug/kg	100				70	129	
	alpha-Chlordane	16.7	17.2	ug/kg	103				84	120	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB72385BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab Sample ID: PB72385BL Lab File ID: PL005560.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 09/20/2013

Date Analyzed (1): 09/20/2013 Date Analyzed (2): 09/20/2013

Time Analyzed (1): 18:26 Time Analyzed (2): 18:26

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CS-C-07	E3782-04	PL005563.D	09/20/2013	09/20/2013
CS-C-07MS	E3782-04MS	PL005564.D	09/20/2013	09/20/2013
CS-C-07MSD	E3782-04MSD	PL005565.D	09/20/2013	09/20/2013
PB72385BS	PB72385BS	PL005572.D	09/23/2013	09/23/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	5.6 Decanted:
Sample Wt/Vol:	30 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC015305.D	1	09/20/13	09/24/13	PB72373

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.5	U	3.5	3.5	18	ug/kg
11104-28-2	Aroclor-1221	3.5	U	3.5	3.5	18	ug/kg
11141-16-5	Aroclor-1232	3.5	U	3.5	3.5	18	ug/kg
53469-21-9	Aroclor-1242	3.5	U	3.5	3.5	18	ug/kg
12672-29-6	Aroclor-1248	3.5	U	3.5	3.5	18	ug/kg
11097-69-1	Aroclor-1254	3.5	U	1.6	3.5	18	ug/kg
11096-82-5	Aroclor-1260	3.5	U	3.5	3.5	18	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	14.4		10 - 166		72%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.6		60 - 125		88%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PC015281.D	PIBLK-PC015281.D	Tetrachloro-m-xylene	1	20	18.5	93		35	137
		Decachlorobiphenyl	1	20	17.18	86		40	135
		Tetrachloro-m-xylene	2	20	19.56	98		35	137
		Decachlorobiphenyl	2	20	16.84	84		40	135
I.BLK-PC015296.D	PIBLK-PC015296.D	Tetrachloro-m-xylene	1	20	21.27	106		35	137
		Decachlorobiphenyl	1	20	21.13	106		40	135
		Tetrachloro-m-xylene	2	20	23.9	119		35	137
		Decachlorobiphenyl	2	20	22.18	111		40	135
PB72373BL	PB72373BL	Tetrachloro-m-xylene	1	20	17.93	90		10	166
		Decachlorobiphenyl	1	20	16.05	80		60	125
		Tetrachloro-m-xylene	2	20	18.39	92		10	166
		Decachlorobiphenyl	2	20	15.66	78		60	125
E3770-02MS	CARSON-50MS	Tetrachloro-m-xylene	1	20	20.78	104		10	166
		Decachlorobiphenyl	1	20	20.44	102		60	125
		Tetrachloro-m-xylene	2	20	22.78	114		10	166
		Decachlorobiphenyl	2	20	22.01	110		60	125
E3770-02MSD	CARSON-50MSD	Tetrachloro-m-xylene	1	20	20.97	105		10	166
		Decachlorobiphenyl	1	20	18.72	94		60	125
		Tetrachloro-m-xylene	2	20	21.63	108		10	166
		Decachlorobiphenyl	2	20	21.12	106		60	125
E3782-04	CS-C-07	Tetrachloro-m-xylene	1	20	14.43	72		10	166
		Decachlorobiphenyl	1	20	17.56	88		60	125
		Tetrachloro-m-xylene	2	20	22.21	111		10	166
		Decachlorobiphenyl	2	20	9.99	50	*	60	125
I.BLK-PC015308.D	PIBLK-PC015308.D	Tetrachloro-m-xylene	1	20	21.27	106		35	137
		Decachlorobiphenyl	1	20	19.83	99		40	135
		Tetrachloro-m-xylene	2	20	23.11	116		35	137
		Decachlorobiphenyl	2	20	20.43	102		40	135
I.BLK-PO011109.D	PIBLK-PO011109.D	Tetrachloro-m-xylene	1	20	21.84	109		35	137
		Decachlorobiphenyl	1	20	17.35	87		40	135
		Tetrachloro-m-xylene	2	20	19.05	95		35	137
		Decachlorobiphenyl	2	20	18.97	95		40	135
I.BLK-PO011334.D	PIBLK-PO011334.D	Tetrachloro-m-xylene	1	20	26.9	135		35	137
		Decachlorobiphenyl	1	20	22.27	111		40	135
		Tetrachloro-m-xylene	2	20	27.63	138	*	35	137
		Decachlorobiphenyl	2	20	19.07	95		40	135
PB72373BS	PB72373BS	Tetrachloro-m-xylene	1	20	23.17	116		10	166
		Decachlorobiphenyl	1	20	20.19	101		60	125
		Tetrachloro-m-xylene	2	20	22.98	115		10	166
		Decachlorobiphenyl	2	20	16.97	85		60	125
I.BLK-PO011347.D	PIBLK-PO011347.D	Tetrachloro-m-xylene	1	20	27.04	135		35	137
		Decachlorobiphenyl	1	20	22.44	112		40	135
		Tetrachloro-m-xylene	2	20	27.23	136		35	137

Surrogate Summary

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
LBLK-PO011347.D	PIBLK-PO011347.D	Decachlorobiphenyl	2	20	18.75	94		40	135

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC015302.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CARSON-50MS**											
E3770-02MS	AR1016	87	0	110	ug/kg	126				40	140	
	AR1260	87	0	98.8	ug/kg	114				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC015303.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CARSON-50MSD**											
E3770-02MSD	AR1016	86.9	0	100	ug/kg	115		9		40	140	20
	AR1260	86.9	0	91.7	ug/kg	106		7		60	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PO011346.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB72373BS	AR1016	66.6	92.1	ug/kg	138				53	140	
	AR1260	66.6	76.8	ug/kg	115				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB72373BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab Sample ID: PB72373BL Lab File ID: PC015300.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 09/20/2013

Date Analyzed (1): 09/24/2013 Date Analyzed (2): 09/24/2013

Time Analyzed (1): 17:05 Time Analyzed (2): 17:05

Instrument ID (1): ECD_C Instrument ID (2): ECD_C

GC Column (1): RTX-CLPest ID: 0.32 (mm) GC Column (2): RTX-CLPestII ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CARSON-50MS	E3770-02MS	PC015302.D	09/24/2013	09/24/2013
CARSON-50MSD	E3770-02MSD	PC015303.D	09/24/2013	09/24/2013
CS-C-07	E3782-04	PC015305.D	09/24/2013	09/24/2013
PB72373BS	PB72373BS	PO011346.D	09/30/2013	09/30/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	5.6 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007530.D	1	09/20/13	09/20/13	PB72380

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	17.6	UJ U	11.5	17.6	70.8	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	285		12 - 189		57%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
1.BLK-PE007479.D	PIBLK-PE007479.D	2,4-DCAA	1	500	482.22	96		43	172
		2,4-DCAA	2	500	546.66	109		43	172
1.BLK-PE007524.D	PIBLK-PE007524.D	2,4-DCAA	1	500	612	122		43	172
		2,4-DCAA	2	500	686.79	137		43	172
PB72380BL	PB72380BL	2,4-DCAA	1	500	401.51	80		12	189
		2,4-DCAA	2	500	482.89	97		12	189
PB72380BS	PB72380BS	2,4-DCAA	1	500	492.75	99		12	189
		2,4-DCAA	2	500	503.81	101		12	189
E3782-04	CS-C-07	2,4-DCAA	1	500	285.54	57		12	189
		2,4-DCAA	2	500	404.46	81		12	189
E3780-01MS	EME-ROOT-ZONEMS	2,4-DCAA	1	500	123.7	25		12	189
		2,4-DCAA	2	500	92.87	19		12	189
E3780-01MSD	EME-ROOT-ZONEMSD	2,4-DCAA	1	500	183.07	37		12	189
		2,4-DCAA	2	500	193.58	39		12	189
1.BLK-PE007533.D	PIBLK-PE007533.D	2,4-DCAA	1	500	696.22	139		43	172
		2,4-DCAA	2	500	783.15	157		43	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007531.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**EME-ROOT-ZONEMS**											
E3780-01MS	2,4,5-TP(Silvex)	170	0	22.2	ug/Kg	13				13	154	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007532.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**EME-ROOT-ZONEMSD**											
E3780-01MSD	2,4,5-TP(Silvex)	170	0	35	ug/Kg	21		47	*	13	154	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E3782

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE007528.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB72380BS	2,4,5-TP(Silvex)	170	150	ug/Kg	88				63	134	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB72380BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E3782 SAS No.: E3782 SDG NO.: E3782

Lab Sample ID: PB72380BL Lab File ID: PE007527.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 09/20/2013

Date Analyzed (1): 09/20/2013 Date Analyzed (2): 09/20/2013

Time Analyzed (1): 18:09 Time Analyzed (2): 18:09

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB72380BS	PB72380BS	PE007528.D	09/20/2013	09/20/2013
CS-C-07	E3782-04	PE007530.D	09/20/2013	09/20/2013
EME-ROOT-ZONEMS	E3780-01MS	PE007531.D	09/20/2013	09/20/2013
EME-ROOT-ZONEMSD	E3780-01MSD	PE007532.D	09/20/2013	09/20/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	94.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	4.5		1	0.289	0.438	0.875	mg/Kg	09/20/13	09/20/13	SW6010
7440-39-3	Barium	65.3		1	0.35	2.19	4.38	mg/Kg	09/20/13	09/20/13	SW6010
7440-41-7	Beryllium	0.21	J	1	0.053	0.131	0.263	mg/Kg	09/20/13	09/20/13	SW6010
7440-43-9	Cadmium	0.47		1	0.053	0.131	0.263	mg/Kg	09/20/13	09/20/13	SW6010
7440-47-3	Chromium	8.4		1	0.114	0.219	0.438	mg/Kg	09/20/13	09/20/13	SW6010
7440-50-8	Copper	15.9		1	0.28	0.438	0.875	mg/Kg	09/20/13	09/20/13	SW6010
7439-92-1	Lead	8.8	J	1	0.105	0.263	0.525	mg/Kg	09/20/13	09/20/13	SW6010
7439-96-5	Manganese	320	J	1	0.166	0.438	0.875	mg/Kg	09/20/13	09/20/13	SW6010
7439-97-6	Mercury	0.005	U	1	0.005	0.005	0.009	mg/Kg	09/20/13	09/23/13	SW7471A
7440-02-0	Nickel	16.3		1	0.403	0.875	1.75	mg/Kg	09/20/13	09/20/13	SW6010
7782-49-2	Selenium	2		1	0.359	0.438	0.875	mg/Kg	09/20/13	09/20/13	SW6010
7440-22-4	Silver	0.99	J	1	0.131	0.219	0.438	mg/Kg	09/20/13	09/20/13	SW6010
7440-66-6	Zinc	53.2		1	0.613	0.875	1.75	mg/Kg	09/20/13	09/20/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Metals Group1				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV29	Mercury	3.7033	4	92.6	90 - 110	CV	09/23/2013	09:40	LB67815

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV30	Mercury	4.8796	5	97.6	90 - 110	CV	09/23/2013	09:43	LB67815
CCV31	Mercury	4.9043	5	98.1	90 - 110	CV	09/23/2013	10:05	LB67815
CCV32	Mercury	4.9966	5	99.9	90 - 110	CV	09/23/2013	10:12	LB67815

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1038.2	999	103.9	90 - 110	P	09/20/2013	14:07	LB67812
	Barium	543.39	503	108.0	90 - 110	P	09/20/2013	14:07	LB67812
	Beryllium	494.46	495	99.9	90 - 110	P	09/20/2013	14:07	LB67812
	Cadmium	502.87	496	101.4	90 - 110	P	09/20/2013	14:07	LB67812
	Chromium	508.24	490	103.7	90 - 110	P	09/20/2013	14:07	LB67812
	Copper	537.76	492	109.3	90 - 110	P	09/20/2013	14:07	LB67812
	Lead	1031.1	1002	102.9	90 - 110	P	09/20/2013	14:07	LB67812
	Manganese	521.82	499	104.6	90 - 110	P	09/20/2013	14:07	LB67812
	Nickel	511.78	503	101.7	90 - 110	P	09/20/2013	14:07	LB67812
	Selenium	1042.7	1003	104	90 - 110	P	09/20/2013	14:07	LB67812
	Silver	502.85	501	100.4	90 - 110	P	09/20/2013	14:07	LB67812
	Zinc	1065.9	1025	104	90 - 110	P	09/20/2013	14:07	LB67812

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	20.35	20	101.8	70 - 130	P	09/20/2013	14:11	LB67812
	Barium	102.67	100	102.7	70 - 130	P	09/20/2013	14:11	LB67812
	Beryllium	5.8	6	96.7	70 - 130	P	09/20/2013	14:11	LB67812
	Cadmium	5.51	6	91.8	70 - 130	P	09/20/2013	14:11	LB67812
	Chromium	8.94	10	89.4	70 - 130	P	09/20/2013	14:11	LB67812
	Copper	20.97	20	104.9	70 - 130	P	09/20/2013	14:11	LB67812
	Lead	11.56	12	96.3	70 - 130	P	09/20/2013	14:11	LB67812
	Manganese	20.29	20	101.5	70 - 130	P	09/20/2013	14:11	LB67812
	Nickel	38	40	95.0	70 - 130	P	09/20/2013	14:11	LB67812
	Selenium	20.58	20	102.9	70 - 130	P	09/20/2013	14:11	LB67812
	Silver	8.85	10	88.5	70 - 130	P	09/20/2013	14:11	LB67812
	Zinc	42.75	40	106.9	70 - 130	P	09/20/2013	14:11	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	4959	5000	99.2	90 - 110	P	09/20/2013	14:32	LB67812
	Barium	10023	10000	100.2	90 - 110	P	09/20/2013	14:32	LB67812
	Beryllium	246.21	250	98.5	90 - 110	P	09/20/2013	14:32	LB67812
	Cadmium	2435.3	2500	97.4	90 - 110	P	09/20/2013	14:32	LB67812
	Chromium	987.23	1000	98.7	90 - 110	P	09/20/2013	14:32	LB67812
	Copper	1256.3	1250	100.5	90 - 110	P	09/20/2013	14:32	LB67812
	Lead	4896.5	5000	97.9	90 - 110	P	09/20/2013	14:32	LB67812
	Manganese	2497	2500	99.9	90 - 110	P	09/20/2013	14:32	LB67812
	Nickel	2452.6	2500	98.1	90 - 110	P	09/20/2013	14:32	LB67812
	Selenium	4990.1	5000	99.8	90 - 110	P	09/20/2013	14:32	LB67812
	Silver	1229.2	1250	98.3	90 - 110	P	09/20/2013	14:32	LB67812
	Zinc	2498.8	2500	100	90 - 110	P	09/20/2013	14:32	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Arsenic	20.31	20	101.6	70 - 130	P	09/20/2013	14:36	LB67812
	Barium	101.47	100	101.5	70 - 130	P	09/20/2013	14:36	LB67812
	Beryllium	5.71	6	95.2	70 - 130	P	09/20/2013	14:36	LB67812
	Cadmium	5.49	6	91.5	70 - 130	P	09/20/2013	14:36	LB67812
	Chromium	9.3	10	93.0	70 - 130	P	09/20/2013	14:36	LB67812
	Copper	21.73	20	108.7	70 - 130	P	09/20/2013	14:36	LB67812
	Lead	11.32	12	94.3	70 - 130	P	09/20/2013	14:36	LB67812
	Manganese	20.15	20	100.8	70 - 130	P	09/20/2013	14:36	LB67812
	Nickel	37.89	40	94.7	70 - 130	P	09/20/2013	14:36	LB67812
	Selenium	20.18	20	100.9	70 - 130	P	09/20/2013	14:36	LB67812
	Silver	9.66	10	96.6	70 - 130	P	09/20/2013	14:36	LB67812
	Zinc	40.85	40	102.1	70 - 130	P	09/20/2013	14:36	LB67812

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Arsenic	4907	5000	98.1	90 - 110	P	09/20/2013	15:21	LB67812
	Barium	10097	10000	101	90 - 110	P	09/20/2013	15:21	LB67812
	Beryllium	245.14	250	98.1	90 - 110	P	09/20/2013	15:21	LB67812
	Cadmium	2415	2500	96.6	90 - 110	P	09/20/2013	15:21	LB67812
	Chromium	977.35	1000	97.7	90 - 110	P	09/20/2013	15:21	LB67812
	Copper	1248.8	1250	99.9	90 - 110	P	09/20/2013	15:21	LB67812
	Lead	4873.6	5000	97.5	90 - 110	P	09/20/2013	15:21	LB67812
	Manganese	2495.1	2500	99.8	90 - 110	P	09/20/2013	15:21	LB67812
	Nickel	2435.7	2500	97.4	90 - 110	P	09/20/2013	15:21	LB67812
	Selenium	4946.4	5000	98.9	90 - 110	P	09/20/2013	15:21	LB67812
	Silver	1220.3	1250	97.6	90 - 110	P	09/20/2013	15:21	LB67812
	Zinc	2492.4	2500	99.7	90 - 110	P	09/20/2013	15:21	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV02	Arsenic	19.49	20	97.5	70 - 130	P	09/20/2013	15:25	LB67812
	Barium	101.65	100	101.7	70 - 130	P	09/20/2013	15:25	LB67812
	Beryllium	5.77	6	96.2	70 - 130	P	09/20/2013	15:25	LB67812
	Cadmium	5.39	6	89.8	70 - 130	P	09/20/2013	15:25	LB67812
	Chromium	9.44	10	94.4	70 - 130	P	09/20/2013	15:25	LB67812
	Copper	20.94	20	104.7	70 - 130	P	09/20/2013	15:25	LB67812
	Lead	12.47	12	103.9	70 - 130	P	09/20/2013	15:25	LB67812
	Manganese	20.12	20	100.6	70 - 130	P	09/20/2013	15:25	LB67812
	Nickel	37.81	40	94.5	70 - 130	P	09/20/2013	15:25	LB67812
	Selenium	19.18	20	95.9	70 - 130	P	09/20/2013	15:25	LB67812
	Silver	9.57	10	95.7	70 - 130	P	09/20/2013	15:25	LB67812
	Zinc	41.23	40	103.1	70 - 130	P	09/20/2013	15:25	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Arsenic	4951.6	5000	99.0	90 - 110	P	09/20/2013	16:30	LB67812
	Barium	10150	10000	101.5	90 - 110	P	09/20/2013	16:30	LB67812
	Beryllium	245.68	250	98.3	90 - 110	P	09/20/2013	16:30	LB67812
	Cadmium	2429.5	2500	97.2	90 - 110	P	09/20/2013	16:30	LB67812
	Chromium	980.23	1000	98.0	90 - 110	P	09/20/2013	16:30	LB67812
	Copper	1253.5	1250	100.3	90 - 110	P	09/20/2013	16:30	LB67812
	Lead	4892.4	5000	97.8	90 - 110	P	09/20/2013	16:30	LB67812
	Manganese	2495.1	2500	99.8	90 - 110	P	09/20/2013	16:30	LB67812
	Nickel	2450.1	2500	98.0	90 - 110	P	09/20/2013	16:30	LB67812
	Selenium	4983.1	5000	99.7	90 - 110	P	09/20/2013	16:30	LB67812
	Silver	1223.7	1250	97.9	90 - 110	P	09/20/2013	16:30	LB67812
	Zinc	2538.5	2500	101.5	90 - 110	P	09/20/2013	16:30	LB67812
CCV04	Arsenic	4997.2	5000	99.9	90 - 110	P	09/20/2013	17:58	LB67812
	Barium	9755.6	10000	97.6	90 - 110	P	09/20/2013	17:58	LB67812
	Beryllium	242.84	250	97.1	90 - 110	P	09/20/2013	17:58	LB67812
	Cadmium	2384.3	2500	95.4	90 - 110	P	09/20/2013	17:58	LB67812
	Chromium	955.36	1000	95.5	90 - 110	P	09/20/2013	17:58	LB67812
	Copper	1240.1	1250	99.2	90 - 110	P	09/20/2013	17:58	LB67812
	Lead	4788.1	5000	95.8	90 - 110	P	09/20/2013	17:58	LB67812
	Manganese	2403.7	2500	96.1	90 - 110	P	09/20/2013	17:58	LB67812
	Nickel	2368	2500	94.7	90 - 110	P	09/20/2013	17:58	LB67812
	Selenium	4928.6	5000	98.6	90 - 110	P	09/20/2013	17:58	LB67812
	Silver	1225.1	1250	98.0	90 - 110	P	09/20/2013	17:58	LB67812
	Zinc	2508.2	2500	100.3	90 - 110	P	09/20/2013	17:58	LB67812
CCV05	Arsenic	5108.9	5000	102.2	90 - 110	P	09/20/2013	18:40	LB67812
	Barium	9844.3	10000	98.4	90 - 110	P	09/20/2013	18:40	LB67812
	Beryllium	247.87	250	99.1	90 - 110	P	09/20/2013	18:40	LB67812
	Cadmium	2400.2	2500	96.0	90 - 110	P	09/20/2013	18:40	LB67812
	Chromium	971.92	1000	97.2	90 - 110	P	09/20/2013	18:40	LB67812
	Copper	1250	1250	100	90 - 110	P	09/20/2013	18:40	LB67812
	Lead	4807	5000	96.1	90 - 110	P	09/20/2013	18:40	LB67812
	Manganese	2412.8	2500	96.5	90 - 110	P	09/20/2013	18:40	LB67812
	Nickel	2363.9	2500	94.6	90 - 110	P	09/20/2013	18:40	LB67812
	Selenium	4956.9	5000	99.1	90 - 110	P	09/20/2013	18:40	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1262.7	1250	101.0	90 - 110	P	09/20/2013	18:40	LB67812
	Zinc	2632.1	2500	105.3	90 - 110	P	09/20/2013	18:40	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Arsenic	21.6	20	108	70 - 130	P	09/20/2013	18:48	LB67812
	Barium	98.18	100	98.2	70 - 130	P	09/20/2013	18:48	LB67812
	Beryllium	5.75	6	95.8	70 - 130	P	09/20/2013	18:48	LB67812
	Cadmium	5.41	6	90.2	70 - 130	P	09/20/2013	18:48	LB67812
	Chromium	9.03	10	90.3	70 - 130	P	09/20/2013	18:48	LB67812
	Copper	21.44	20	107.2	70 - 130	P	09/20/2013	18:48	LB67812
	Lead	11.07	12	92.3	70 - 130	P	09/20/2013	18:48	LB67812
	Manganese	19.43	20	97.2	70 - 130	P	09/20/2013	18:48	LB67812
	Nickel	36.9	40	92.3	70 - 130	P	09/20/2013	18:48	LB67812
	Selenium	17.07	20	85.4	70 - 130	P	09/20/2013	18:48	LB67812
	Silver	9.7	10	97.0	70 - 130	P	09/20/2013	18:48	LB67812
	Zinc	44.43	40	111.1	70 - 130	P	09/20/2013	18:48	LB67812

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	22.92	20	114.6	40 - 160	P	09/20/2013	14:19	LB67812
	Barium	102.14	100	102.1	40 - 160	P	09/20/2013	14:19	LB67812
	Beryllium	5.67	6	94.5	40 - 160	P	09/20/2013	14:19	LB67812
	Cadmium	5.52	6	92.0	40 - 160	P	09/20/2013	14:19	LB67812
	Chromium	9.5	10	95.0	40 - 160	P	09/20/2013	14:19	LB67812
	Copper	21.32	20	106.6	40 - 160	P	09/20/2013	14:19	LB67812
	Lead	12.29	12	102.4	40 - 160	P	09/20/2013	14:19	LB67812
	Manganese	20.21	20	101.1	40 - 160	P	09/20/2013	14:19	LB67812
	Nickel	38.12	40	95.3	40 - 160	P	09/20/2013	14:19	LB67812
	Selenium	18.91	20	94.6	40 - 160	P	09/20/2013	14:19	LB67812
	Silver	9.53	10	95.3	40 - 160	P	09/20/2013	14:19	LB67812
	Zinc	41.86	40	104.7	40 - 160	P	09/20/2013	14:19	LB67812
CRA	Mercury	0.1798	0.2	89.9	40 - 160	CV	09/23/2013	09:47	LB67815

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB29	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	09/23/2013	09:42	LB67815

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB30	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	09/23/2013	09:45	LB67815
CCB31	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	09/23/2013	10:07	LB67815
CCB32	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	09/23/2013	10:14	LB67815

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:15	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	14:15	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	14:15	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	14:15	LB67812
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	14:15	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:15	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	14:15	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:15	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	14:15	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:15	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	14:15	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	14:15	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:40	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	14:40	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	14:40	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	14:40	LB67812
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	14:40	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:40	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	14:40	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:40	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	14:40	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	14:40	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	14:40	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	14:40	LB67812
CCB02	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	15:30	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	15:30	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	15:30	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	15:30	LB67812
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	15:30	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	15:30	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	15:30	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	15:30	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	15:30	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	15:30	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	15:30	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	15:30	LB67812
CCB03	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	16:34	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	16:34	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	16:34	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	16:34	LB67812
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	16:34	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	16:34	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	16:34	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	16:34	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	16:34	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	16:34	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	16:34	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	16:34	LB67812
CCB04	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:02	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	18:02	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	18:02	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	18:02	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	18:02	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:02	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	18:02	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:02	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	18:02	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:02	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	18:02	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	18:02	LB67812
CCB05	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:52	LB67812
	Barium	50.0	+/-100	U	50.0	100	P	09/20/2013	18:52	LB67812
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	18:52	LB67812
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	09/20/2013	18:52	LB67812
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	18:52	LB67812
	Copper	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:52	LB67812
	Lead	6.0	+/-12.0	U	6.0	12.0	P	09/20/2013	18:52	LB67812
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:52	LB67812
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	18:52	LB67812
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	09/20/2013	18:52	LB67812
	Silver	5.0	+/-10.0	U	5.0	10.0	P	09/20/2013	18:52	LB67812
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	09/20/2013	18:52	LB67812

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Instrument: CVI

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB72384BL		**SOLID**		**Batch Number:**		**PB72384**		**Prep Date:**	**09/20/2013**	
	Mercury	0.005	<0.01	U	0.005	0.01	CV	09/23/2013	09:52	LB67815

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Metals
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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB72367BL		**SOLID**		**Batch Number:**		**PB72367**		**Prep Date:**	**09/20/2013**	
	Arsenic	0.5	<1.0	U	0.5	1.0	P	09/20/2013	15:48	LB67812
	Barium	2.5	<5.0	U	2.5	5.0	P	09/20/2013	15:48	LB67812
	Beryllium	0.15	<0.3	U	0.15	0.3	P	09/20/2013	15:48	LB67812
	Cadmium	0.15	<0.3	U	0.15	0.3	P	09/20/2013	15:48	LB67812
	Chromium	0.25	<0.5	U	0.25	0.5	P	09/20/2013	15:48	LB67812
	Copper	0.5	<1.0	U	0.5	1.0	P	09/20/2013	15:48	LB67812
	Lead	0.3	<0.6	U	0.3	0.6	P	09/20/2013	15:48	LB67812
	Manganese	0.5	<1.0	U	0.5	1.0	P	09/20/2013	15:48	LB67812
	Nickel	1.0	<2.0	U	1.0	2.0	P	09/20/2013	15:48	LB67812
	Selenium	0.5	<1.0	U	0.5	1.0	P	09/20/2013	15:48	LB67812
	Silver	0.25	<0.5	U	0.25	0.5	P	09/20/2013	15:48	LB67812
	Zinc	1.0	<2.0	U	1.0	2.0	P	09/20/2013	15:48	LB67812

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	1.21				09/20/2013	14:23	LB67812
	Barium	0.41	2	20.5	-9900 - 10100%	09/20/2013	14:23	LB67812
	Beryllium	0.54				09/20/2013	14:23	LB67812
	Cadmium	1.52				09/20/2013	14:23	LB67812
	Chromium	39.75	43	92.4	77 - 123%	09/20/2013	14:23	LB67812
	Copper	24.51	23	106.6	-9 - 209%	09/20/2013	14:23	LB67812
	Lead	8.46	10	84.6	0 - 200%	09/20/2013	14:23	LB67812
	Manganese	20.89	19	109.9	21 - 179%	09/20/2013	14:23	LB67812
	Nickel	19.76	21	94.1	-90 - 290%	09/20/2013	14:23	LB67812
	Selenium	1.21				09/20/2013	14:23	LB67812
	Silver	4.88				09/20/2013	14:23	LB67812
	Zinc	28.58	28	102.1	-114 - 314%	09/20/2013	14:23	LB67812
ICSAB01	Arsenic	96.62	101	95.7	80 - 120%	09/20/2013	14:28	LB67812
	Barium	506.43	517	98	60 - 140%	09/20/2013	14:28	LB67812
	Beryllium	501.26	504	99.5	80 - 120%	09/20/2013	14:28	LB67812
	Cadmium	964.15	989	97.5	80 - 120%	09/20/2013	14:28	LB67812
	Chromium	508.26	519	97.9	80 - 120%	09/20/2013	14:28	LB67812
	Copper	493.17	550	89.7	80 - 120%	09/20/2013	14:28	LB67812
	Lead	55.94	58	96.4	80 - 120%	09/20/2013	14:28	LB67812
	Manganese	497.37	507	98.1	80 - 120%	09/20/2013	14:28	LB67812
	Nickel	978.01	983	99.5	80 - 120%	09/20/2013	14:28	LB67812
	Selenium	53.54	51	105	34 - 166%	09/20/2013	14:28	LB67812
	Silver	199.25	205	97.2	80 - 120%	09/20/2013	14:28	LB67812
	Zinc	1003.1	986	101.7	80 - 120%	09/20/2013	14:28	LB67812

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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3782

contract: VIAS01 **lab code:** CHEM **case no.:** E3782 **sas no.:** E3782

matrix: Solid **sample id:** E3760-09 **client id:** B-9MS

Percent Solids for Sample: 93.9 **Spiked ID:** E3760-10 **Percent Solids for Spike Sample:** 93.9

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	40.6		2.95		41	92		P
Barium	mg/Kg	39 - 158	127		122		10.2	49		P
Beryllium	mg/Kg	79 - 112	10.24		0.256	J	10.2	98		P
Cadmium	mg/Kg	73 - 114	10		1.16		10.2	87		P
Chromium	mg/Kg	68 - 122	23.3		6.89		20.5	80		P
Copper	mg/Kg	59 - 132	20		8.29		15.4	76		P
Lead	mg/Kg	66 - 125	118		81.1		51.2	72		P
Manganese	mg/Kg	10 - 205	178		171		10.2	69		P
Nickel	mg/Kg	64 - 129	35.7		11.3		25.6	95		P
Selenium	mg/Kg	69 - 105	90.7		0.375	U	100	90.7		P
Silver	mg/Kg	54 - 131	3.19		0.509		3.8	71		P
Zinc	mg/Kg	67 - 127	63.3		141		10.2	-762		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3782

contract: VIAS01 **lab code:** CHEM **case no.:** E3782 **sas no.:** E3782

matrix: Solid **sample id:** E3760-09 **client id:** B-9MSD

Percent Solids for Sample: 93.9 **Spiked ID:** E3760-11 **Percent Solids for Spike Sample:** 93.9

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	41		2.95		41.8	91		P
Barium	mg/Kg	39 - 158	128		122		10.4	58		P
Beryllium	mg/Kg	79 - 112	10.33		0.256	J	10.4	97		P
Cadmium	mg/Kg	73 - 114	10.09		1.16		10.4	86		P
Chromium	mg/Kg	68 - 122	23.5		6.89		20.9	79		P
Copper	mg/Kg	59 - 132	20.2		8.29		15.7	76		P
Lead	mg/Kg	66 - 125	119		81.1		52.2	73		P
Manganese	mg/Kg	10 - 205	179		171		10.4	77		P
Nickel	mg/Kg	64 - 129	36		11.3		26.1	95		P
Selenium	mg/Kg	69 - 105	92		0.375	U	100	92.0		P
Silver	mg/Kg	54 - 131	3.21		0.509		3.9	69		P
Zinc	mg/Kg	67 - 127	63.5		141		10.4	-745		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3782

contract: VIAS01 **lab code:** CHEM **case no.:** E3782 **sas no.:** E3782

matrix: Solid **sample id:** E3780-01 **client id:** EME-ROOT-ZONEMS

Percent Solids for Sample: 99.3 **Spiked ID:** E3780-01MS **Percent Solids for Spike Sample:** 99.3

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.201		0.006	J	0.2	98		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3782

contract: VIAS01 **lab code:** CHEM **case no.:** E3782 **sas no.:** E3782

matrix: Solid **sample id:** E3780-01 **client id:** EME-ROOT-ZONEMSD

Percent Solids for Sample: 99.3 **Spiked ID:** E3780-01MSD **Percent Solids for Spike Sample:** 99.3

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.205		0.006	J	0.2	100		CV

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Metals
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Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Matrix: Solid **Sample ID:** E3760-09 **Client ID:** B-9DUP

Percent Solids for Sample: 93.9 **Duplicate ID** E3760-09DUP **Percent Solids for Spike Sample:** 93.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	2.95		2.96		0		P
Barium	mg/Kg	20	122		121		1		P
Beryllium	mg/Kg	20	0.256	J	0.268	J	5		P
Cadmium	mg/Kg	20	1.16		1.22		5		P
Chromium	mg/Kg	20	6.89		7.01		2		P
Copper	mg/Kg	20	8.29		8.08		3		P
Lead	mg/Kg	20	81.1		83.2		3		P
Manganese	mg/Kg	20	171		174		2		P
Nickel	mg/Kg	20	11.3		11.3		0		P
Selenium	mg/Kg	20	0.375	U	0.373	U			P
Silver	mg/Kg	20	0.509		0.507		0		P
Zinc	mg/Kg	20	141		156		10		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Matrix: Solid **Sample ID:** E3760-10 **Client ID:** B-9MSD

Percent Solids for Sample: 93.9 **Duplicate ID** E3760-11 **Percent Solids for Spike Sample:** 93.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	40.6		41		1		P
Barium	mg/Kg	20	127		128		1		P
Beryllium	mg/Kg	20	10.24		10.33		1		P
Cadmium	mg/Kg	20	10		10.09		1		P
Chromium	mg/Kg	20	23.3		23.5		1		P
Copper	mg/Kg	20	20		20.2		1		P
Lead	mg/Kg	20	118		119		1		P
Manganese	mg/Kg	20	178		179		1		P
Nickel	mg/Kg	20	35.7		36		1		P
Selenium	mg/Kg	20	90.7		92		1		P
Silver	mg/Kg	20	3.19		3.21		1		P
Zinc	mg/Kg	20	63.3		63.5		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Matrix: Solid **Sample ID:** E3780-01 **Client ID:** EME-ROOT-ZONEDUP

Percent Solids for Sample: 99.3 **Duplicate ID** E3780-01DUP **Percent Solids for Spike Sample:** 99.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.006	J	0.005	J	18		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Matrix: Solid **Sample ID:** E3780-01MS **Client ID:** EME-ROOT-ZONEMSD

Percent Solids for Sample: 99.3 **Duplicate ID** E3780-01MSD **Percent Solids for Spike Sample:** 99.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.201		0.205		2		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB72367BS							
Arsenic	mg/Kg	40	38.3		95.8	82 - 112	P
Barium	mg/Kg	10	10.57		105.7	83 - 118	P
Beryllium	mg/Kg	10	9.53		95.3	84 - 113	P
Cadmium	mg/Kg	10	9.34		93.4	82 - 117	P
Chromium	mg/Kg	20	19.4		97.0	84 - 115	P
Copper	mg/Kg	15	15.5		103.3	80 - 115	P
Lead	mg/Kg	50	47.7		95.4	82 - 117	P
Manganese	mg/Kg	10	10.05		100.5	84 - 114	P
Nickel	mg/Kg	25	24		96.0	85 - 118	P
Selenium	mg/Kg	100	98.3		98.3	74 - 110	P
Silver	mg/Kg	3.8	3.39		89.2	81 - 123	P
Zinc	mg/Kg	10	10.09		100.9	88 - 127	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3782

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3782 **SAS No.:** E3782

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB72384BS							
Mercury	mg/Kg	0.2	0.185		92.5	73 - 121	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

B-9L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb67812 **Lab Sample ID :** E3760-09L **SDG No.:** E3782

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	2.95		3.05	J	3		P
Barium	122		130		7		P
Beryllium	0.256	J	0.274	U	100.0		P
Cadmium	1.16		0.852	J	27		P
Chromium	6.89		7.51		9		P
Copper	8.29		10.06		21		P
Lead	81.1		82		1		P
Manganese	171		195		14		P
Nickel	11.3		11.1		2		P
Selenium	0.375	U	1.87	U			P
Silver	0.509		0.686	U	100.0		P
Zinc	141		141		0		P

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/19/13 09:29
Project:	Catlin NY	Date Received:	09/20/13
Client Sample ID:	CS-C-07	SDG No.:	E3782
Lab Sample ID:	E3782-04	Matrix:	SOIL
		% Solid:	94.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.133	U	1	0.035	0.133	0.265	mg/Kg	09/23/13	09/24/13 11:16	9012B
Hexavalent Chromium	0.211	U	1	0.084	0.211	0.422	mg/Kg	09/24/13	09/24/13 16:15	7196A
Trivalent Chromium	8.4		1	0.106	0.106	0.106	mg/Kg	09/24/13	09/24/13 16:15	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E3782
Project:	Catlin NY	**RunNo.:**	LB67835

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.24	0.25	96	90-110	09/24/2013
Sample ID:	**ICVPB72415**						
Cyanide		mg/L	0.09	0.10	90	85-115	09/24/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	09/24/2013

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Initial and Continuing Calibration Verification

Client: VIASANT, LLC **SDG No.:** E3782

Project: Catlin NY **RunNo.:** LB67846

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	09/24/2013
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	09/24/2013
Sample ID: ICV1						
Hexavalent Chromium	mg/L	0.50	0.50	100	90-110	09/24/2013

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E3782
Project:	Catlin NY	**RunNo.:**	LB67846

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3782

Project: Catlin NY **RunNo.:** LB67835

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	09/24/2013
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	09/24/2013
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	09/24/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E3782

Project: Catlin NY **RunNo.:** LB67846

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	09/24/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	09/24/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	09/24/2013

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Initial and Continuing Calibration Blank Summary

Client:	VIASANT, LLC	**SDG No.:**	E3782
Project:	Catlin NY	**RunNo.:**	LB67846

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: VIASANT, LLC **SDG No.:** E3782

Project: Catlin NY

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: LB67835BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	09/24/2013
Sample ID: LB67846BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	09/24/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E3782
Project: Catlin NY
Sample ID: E3780-01
Client ID: EME-ROOT-ZONES
Percent Solids for Spike Sample: 99.3

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	1.980		0.033	U	2.01	1	97		09/24/2013

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Matrix Spike Summary

Client: VIASANT, LLC
SDG No.: E3782
Project: Catlin NY
Sample ID: E3780-01
Client ID: EME-ROOT-ZONESD
Percent Solids for Spike Sample: 99.3

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	1.980		0.033	U	2.01	1	97		09/24/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-07S

SDG No.: E3782
Sample ID: E3782-04
Percent Solids for Spike Sample: 94.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	40.00		0.084	U	42.40	2	94		09/24/2013
Hexavalent Chromium	mg/Kg	75-125	37.00		0.084	U	42.40	2	87		09/24/2013
Hexavalent Chromium	mg/Kg	75-125	1200.00		0.084	U	1380	40	87		09/24/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: EME-ROOT-ZONED

SDG No.: E3782
Sample ID: E3780-01
Percent Solids for Spike Sample: 99.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.033	U	0.033	U	1	0		09/24/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
SDG No.: E3782
Project: Catlin NY
Sample ID: E3780-01
Client ID: EME-ROOT-ZONESD
Percent Solids for Spike Sample: 99.3

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	1.980	1.980		1	0		09/24/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-07D

SDG No.: E3782
Sample ID: E3782-04
Percent Solids for Spike Sample: 94.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.084	U	0.084	U	1	0		09/24/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E3782

Project: Catlin NY **Run No.:** LB67835

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB67835BSS								
Cyanide		mg/Kg	10.00	9.36		94	1	80-110	09/24/2013

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Laboratory Control Sample Summary

Client:	VIASANT, LLC	**SDG No.:**	E3782
Project:	Catlin NY	**Run No.:**	LB67846

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB67846BSS								
Hexavalent Chromium	**mg/Kg**	**20.00**	**19.80**		**99**	**1**	**80-120**	**09/24/2013**

VIASANT, LLC.
606 East Baltimore Pike, Floor 3
Media, PA 19063
(484) 443-4250

Letter of Transmittal

CBS Corporation
Former Townley Hill Road Dump Site
Catlin, New York
VIASANT Project # VPR-13126

VIASANT Submittal(s) Number:	**S-030**
Submittal Title :	Analytical Data Pkg, EDD, and DUSR Change Order Work Borrow Soils Confirmation Sampling DUSR 4
Submittal Date:	December 10, 2013
Date(s) of Previous Submissions:	S024: September 16, 2013 – DUSRs 1 & 2 S028: November 25, 2013 – DUSR 3
To: **Cc:**	Rich Hrenko, Cummings Riter N/A
From:	Robin White
Reference Specification Section and/or Drawing:	01600

Contractor's Submittal Section:

We are sending:

☐ Shop Drawing ☒ Product Data ☐ Sample ☐ Schedule ☒ Record ☐ Plan

☐ Certificate ☒ Report ☐ Permit ☐ Other

# of Copies	As Requested	For Review	For Approval	For Your File	Deviations from Specification
1 CD	X			X	N/A

COMMENTS:

The following data for samples collected as a result of increasing the estimated import volume is included in this package:

1 CD – Borrow Fill full Data Packages and EDDs
1 Binder – DUSR 4A for 3rd Borrow Soils Sampling Event on 9/19/13 (SDG E3782)
1 Binder – DUSR 4B for 4th Borrow Soils Sampling Event on 10/22/13 (SDG E4195)

Robin White

Robin White, December 10, 2013
VIASANT, LLC.

DATA USABILITY SUMMARY REPORT

CBS TOWNLEY HILL SITE

SAMPLED 10/22/2013
SDG E4195

VOLATILES, SEMIVOLATILES. PESTICIDES
PCB, HERBICIDES, METALS
WET CHEMISTRY

Prepared for:

VIASANT, LLC.
606 E. Baltimore Pike, Floor 3
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE
Borrow Soil Confirmation
SDG: E4195
Sampled 10/22/2013

VOLATILE ORGANICS, SEMIVOLATILE ORGANICS
PESTICIDES, PCB, HERBICICES, METALS

CS-D-19	(E4195-01)	CS-D-20	(E4195-02)
CS-C-08	(E4195-03)	TB-005	(E4195-04)

DATA ASSESSMENT

An ASP data package containing analytical results for three soil samples and a trip blank was received from VIASANT, LLC on 16Nov13. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the CBS Townley Hill Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of volatile organics, semivolatile organics, pesticides, PCB, herbicides, cyanide, hexavalent chromium and trivalent chromium. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-24, Rev. #2, August 2008, Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B; SOP HW-22, Rev.#4, August 2008, Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D; SOP HW-45, Rev.#1, October 2006, Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A, SOP HW-44 Rev.#1, October 2006, Validating Pesticide Compounds by Gas Chromatography SW-846 Method 8081B; and SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) were used as technical references.

The 1,4-dioxane results from this group of samples have been qualified as estimations do to poor calibration performance.

The 2,4,5-TP, lead and nickel results from CS-C-08 have been qualified as estimations due to high spiked sample recoveries.

The barium, chromium, copper and manganese results from CS-C-08 have been qualified as estimations due to poor serial dilution performance.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "UJ" or "J". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 25 NOV 13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Samples must remain chilled to 4°C between the time of collection and the time of analysis. Soil samples must be analyzed for volatile organics and cyanide within 12 days. Extractions for semivolatile organics, pesticides, PCB and herbicides must be performed within 5 days. Sample extracts must be analyzed within 40 days. Metals samples must be analyzed within 180 days, mercury within 26 days.

This sample delivery group contained three soil samples that were collected from the CBS Townley Hill Site and shipped to the laboratory, via FedEx, on 22Oct13. The shipment arrived intact and packed with ice the following morning. A cooler temperature of 6°C were recorded at the time of laboratory receipt.

It is noted that there was no documentation to indicate that custody seals were present and intact on the cooler.

Laboratory data was complete and well organized. Each analysis was completed within the ASP holding time limitations and was supported by the raw data. A detailed discussion of the review process follows.

VOLATILE ORGANICS

CS-D-19, CS-D-20 and TB-005 were analyzed for volatile organics. These determinations were performed well and satisfied most of the requirements of ASP protocol.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Three method blanks and a trip blank were analyzed with this group of samples. Each of these blanks demonstrated acceptable chromatography and was free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately

detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. Each of these checks satisfied the ASP acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations were performed on 22Oct13 and 23Oct13. Standards of 1, 5, 20, 50, 100 and 200 µg/l were included in the calibration on 22Oct13. The 23Oct13 calibration included standards of 5, 10, 20, 50, 100 and 200 µg/l. The calibration on 23Oct13 included a heated purge. With the exception of 1,4-dioxane, each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during both calibrations. 1,4-Dioxane standards, however, failed to produce the required minimum levels of instrument response. The 1,4-dioxane results from this group of samples have been qualified as estimations based on this performance.

Continuing calibration checks were performed on 24Oct13, prior to each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibrations, each of these checks demonstrated an acceptable level of instrument stability. It is noted that the response of 1,4-dioxane was again low during these checks.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, an incorrect acceptance criteria was applied. However, when compared to the ASP requirements, acceptable recoveries were reported for each surrogate addition to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, an acceptable response was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated delivery group was chosen for matrix spiking. The entire list of targeted analytes was added to two portions of this sample. The recoveries reported for these additions demonstrated acceptable levels of measurement precision and accuracy.

Two solid and to aqueous spiked blanks (LCS/LCSD) were also analyzed with this group of samples. Both LCS/LCSD pairs produced acceptable recoveries of each targeted analyte.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this delivery group.

SEMIVOLATILE ORGANICS

CS-C-08 was analyzed for semivolatile organics. These determinations were performed well and satisfied the requirements of ASP protocol.

Blanks

Blanks are analyzed to evaluate various sources of sample contam-

ination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

MS Tuning

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12-hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 15Oct13. Standards of 10, 25, 40, 50, 60 and 80 ng were included. Each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration.

A calibration verification standard was analyzed on 24Oct13, prior to the twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, this check demonstrated an acceptable level of instrument stability.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were prepared, the laboratory evaluated surrogate performance based on its own acceptance criteria. When compared to the ASP requirements, however, an acceptable recovery was reported for every surrogate addition to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of 2. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these requirements, acceptable performance was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. The entire list of targeted analytes was added to two portions of this sample. With one exception, the recoveries of these spikes demonstrated acceptable levels of measurement precision and accuracy. The recoveries reported for benzo(k)fluoranthene demonstrated poor measurement precision. This performance, however, does not required data qualifications because both of the individual spike recoveries were within the laboratory's range of acceptance.

A solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable recovery of each analyte targeted by this program.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate was not identified in this delivery group.

PESTICIDES

CS-C-08 was analyzed for pesticides by gas chromatography. These determinations were performed well and satisfied the requirements of ASP protocol.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration was performed on 15Oct13. Single component pesticide standards of 5, 25, 50, 75 and 100 ng/ml were analyzed on two chromatography columns, VB-MR1 and ZB-MR2. These standards produced an acceptable level of instrument response and demonstrated an acceptable degree of linearity.

Three calibration verification standards were analyzed on 24Oct13, prior to and terminating each twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability on both chromatographic columns.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. Each of these additions was recovered successfully.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated delivery group was selected for matrix spiking. The entire list of targeted single component pesticides was added to two portions of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy.

One solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable recovery of each single component pesticide.

PCB

CS-C-08 was analyzed for PCB by gas chromatography. These determinations were performed well and satisfied the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to insure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

Initial instrument calibrations were performed on 07Oct13 and 24Oct13. Both calibrations addressed five representative peaks of AR1016 and AR1260 at concentrations of 50, 250, 500, 750 and

1000 ng/ml. These standards were analyzed on two chromatographic columns, RTX-CLPest and RTX-CLPestII. Each sequence of standards produced acceptable levels of instrument response and demonstrated an acceptable degree of linearity. Single point calibrations were performed for the representative peaks of AR1221, AR1232, AR1242, AR1248 and AR1254.

The analysis CS-C-08 was bracketed by calibration verification standards of AR1016 and AR1260 that were analyzed on 23Oct13 and 24Oct13. The standard on 23Oct13 demonstrated a drift of 16.6% for one of the AR1016 peaks on the RXT-CLPest column. The RXT-CLPestII column produced a drift of 22.6% for the decachlorobiphenyl surrogate. These conditions are not considered serious because CS-C-08 produced negative PCB results. The calibration check following the analysis of CS-C-08 produced acceptable performance on the RTX-CLPest column. Although the performance of the RTX-CLPestII column had degraded, the reported recoveries met the requirements for a standard at the end of an analytical sequence.

Additional check standards were analyzed on 25Oct13, 28Oct13 and 29Oct13. These bracketed the spiked blank and the analysis of the spiked samples that were from another delivery group. Each of these checks produced acceptable performance from at least one of the analytical columns.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, tetrachloro-m-xylene and decachlorobiphenyl, were added to each program and QC sample. The surrogates added to CS-C-08 and the related QC samples were recovered successfully. It is noted that high surrogate recoveries were reported from four instrument blanks. This performance had no impact on reported data.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. AR1016 and AR1260 were added to two portions of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy. It is noted, however, that these results provide no insight to matrix interferences that might affect the analysis of samples from the Townley Hill site.

One solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an elevated recovery of AR1016 (128%). This indication of positive bias, however, warrants no concern. PCB were not detected in CS-C-08.

HERBICIDES

CS-C-08 was analyzed for 2,4,5-TP (Silvex) by gas chromatography. This analysis was performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank demonstrated acceptable chromatography and was free of targeted analyte contamination.

Calibration

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The initial instrument calibration was performed on 03Oct13. Silvex standards of 200, 500, 750, 1000 and 1500 ng/ml were analyzed on two chromatography columns, ZB-35-HT and ZB-XLB-HT. These standards produced acceptable levels of instrument response and demonstrated the required degree of linearity on both chromatographic systems.

Calibration verifications were performed on 23Oct13 and 24Oct13, prior to and following the twelve-hour periods of instrument operation that included the program sample and its associated QC. When compared to the initial calibration, the checks

bracketing the analysis of CS-C-08 demonstrated a stable chromatographic system.

The calibration checks bracketing the preparation blank and the spiked blank produced acceptable performance on at lest one of the chromatographic systems.

Surrogates

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

2,4-DCAA was added to each program and QC sample. Each of these additions was recovered successfully. It is noted that high recoveries were reported from two instrument blanks. This performance had no impact on reported data.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

A sample from an unrelated program was selected for matrix spiking. 2,4,5-TP was added to two portions of this sample. These spikes produced unacceptably low recoveries (16%,28%).

A solid spiked blank (LCS) was also extracted and analyzed with this group of samples. This LCS produced an acceptable 2,4,5-TP recovery of 106%. Based on this performance, the results from the MS/MSD spikes are assumed to be the result of an interfering sample matrix. Because the MS/MSD results provide no indication of interferences associated with the matrix of CS-C-08, the 2,4,5-TP result from CS-C-08 had been qualified as an estimation and not rejected.

METALS

CS-C-08 was analyzed for mercury and ICP metals. These determinations were performed well and satisfied most of the requirements of ASP protocol. The exceptions are addressed below.

Calibrations

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

Contract Required Detection Limit Standards (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

CRDL standards were analyzed at the beginning of each analytical sequence and periodically throughout the analysis of samples. The recoveries reported for these standards satisfied the ASP acceptance criteria.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. A preparation blank was digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination.

Interference Check Sample (ICSA, ICSAB)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are

measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference check standards were reported from the beginning of each ICP analysis sequence. ICS standards were not analyzed at the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The ICS performance associated with the analytes targeted by this program satisfied the ASP acceptance criteria.

Predigestion Spike

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

Two portions of a sample from an unrelated program were spiked with targeted analytes. The recoveries reported for these additions included unacceptable results for cadmium (126%,126%), lead (130%,130%) and nickel (140%.139%). The cadmium, lead and nickel results reported from CS-C-08 have been qualified s estimations based on this performance.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A sample from an unrelated program were analyzed in duplicate. This duplicate pair demonstrated an acceptable level of measurement precision.

Laboratory Control Standards

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An LCS standard was digested and analyzed with this delivery group. Acceptable recoveries were reported for each analyte targeted by this program.

Serial Dilution Samples

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

A sample from an unrelated program was prepared as a serial dilution. Of the analytes present in this sample, at a concentration exceeding fifty times IDL, barium, chromium, copper and manganese differed from the diluted results by more than 10%. The barium, chromium, copper and manganese results from CS-C-08 have been qualified as estimations based on this performance.

WET CHEMISTRY

CS-C-08 was analyzed for hexavalent chromium, cyanide and trivalent chromium. These determinations were performed well and satisfied the requirements of ASP protocol.

Hexavalent Chromium (CrVI) and Cyanide

The analysis of CrVI and cyanide samples was associated with the appropriate QC checks. The reported QC included acceptable calibration performance and clean blanks. Duplicate samples, spiked samples and spiked blanks demonstrated acceptable levels of measurement precision and accuracy.

It is noted, however, that the cyanide spiked sample was prepared with a sample from an unrelated program. This work provided no insight to matrix interferences that might bias the analysis of program samples.

Trivalent Chromium

Because CS-C-08 produced a positive CrVI result, the trivalent chromium concentration in this sample equaled the reported concentration of total chromium minus the CrVI result.

DATA QUALIFICATIONS

CBS Townley Hill Site

Sampled October 22, 2013

		CALIBRATE 1,4-DIOXANE	SPIKE CADMIUM	SPIKES LEAD	SPIKES NICKEL	SER DIL BARIUM	SER DIL CHROMIUM	SER DIL COPPER
CS-D-19	(E4195-01)	99.3UJ						
CS-D-20	(E4195-02)	99.7UJ						
CS-C-08	(E4195-03)		1.07J	7.56J	14.8J	53.3J	7.03J	11.1J
TB-005	(E4195-04)	50UJ						

		SER DIL MANGANESE	SPIKES 2,4,5-TP
CS-D-19	(E4195-01)		
CS-D-20	(E4195-02)		
CS-C-08	(E4195-03)	369J	18UJ
TB-005	(E4195-04)		

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-D-19	SDG No.:	E4195
Lab Sample ID:	E4195-01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	6.8
Sample Wt/Vol:	5.4 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD039561.D	1		10/23/13	VD102313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.5	0.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-64-1	Acetone	2.5	U	2.5	2.5	24.8	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.5	0.5	5	ug/Kg
75-09-2	Methylene Chloride	0.5	U	0.5	0.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
78-93-3	2-Butanone	7.5	U	3.1	7.5	24.8	ug/Kg
56-23-5	Carbon Tetrachloride	0.5	U	0.5	0.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-66-3	Chloroform	0.5	U	0.5	0.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.5	U	0.5	0.5	5	ug/Kg
71-43-2	Benzene	0.5	U	0.38	0.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
79-01-6	Trichloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-88-3	Toluene	0.5	U	0.5	0.5	5	ug/Kg
127-18-4	Tetrachloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-90-7	Chlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	0.5	U	0.5	0.5	5	ug/Kg
1330-20-7	Total Xylenes	1.49	U	1.22	1.49	14.9	ug/Kg
103-65-1	n-propylbenzene	0.5	U	0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.5	U	0.37	0.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.5	U	0.41	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	0.5	U	0.46	0.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
123-91-1	1,4-Dioxane	99.3	U	99.3	99.3	99.3	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-D-19	SDG No.:	E4195
Lab Sample ID:	E4195-01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	6.8
Sample Wt/Vol:	5.4 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD039561.D	1		10/23/13	VD102313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	41.6		56 - 120		83%	SPK: 50
1868-53-7	Dibromofluoromethane	40.5		57 - 135		81%	SPK: 50
2037-26-5	Toluene-d8	41.9		67 - 123		84%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.9		33 - 141		88%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1431170	6.547				
540-36-3	1,4-Difluorobenzene	2491050	7.663				
3114-55-4	Chlorobenzene-d5	2413190	11.836				
3855-82-1	1,4-Dichlorobenzene-d4	910860	14.189				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-D-20	SDG No.:	E4195
Lab Sample ID:	E4195-02	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	7
Sample Wt/Vol:	5.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD039562.D	1		10/23/13	VD102313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.5	0.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-64-1	Acetone	2.5	U	2.5	2.5	24.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.5	0.5	5	ug/Kg
75-09-2	Methylene Chloride	0.5	U	0.5	0.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
78-93-3	2-Butanone	7.5	U	3.1	7.5	24.9	ug/Kg
56-23-5	Carbon Tetrachloride	0.5	U	0.5	0.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.5	0.5	5	ug/Kg
67-66-3	Chloroform	0.5	U	0.5	0.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.5	U	0.5	0.5	5	ug/Kg
71-43-2	Benzene	0.5	U	0.38	0.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	0.5	U	0.5	0.5	5	ug/Kg
79-01-6	Trichloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-88-3	Toluene	0.5	U	0.5	0.5	5	ug/Kg
127-18-4	Tetrachloroethene	0.5	U	0.5	0.5	5	ug/Kg
108-90-7	Chlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	0.5	U	0.5	0.5	5	ug/Kg
1330-20-7	Total Xylenes	1.5	U	1.22	1.5	15	ug/Kg
103-65-1	n-propylbenzene	0.5	U	0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	0.5	U	0.5	0.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.5	U	0.37	0.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.5	U	0.41	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	0.5	U	0.46	0.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.5	U	0.5	0.5	5	ug/Kg
123-91-1	1,4-Dioxane	99.7	U	99.7	99.7	99.7	ug/Kg
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-D-20	SDG No.:	E4195
Lab Sample ID:	E4195-02	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	7
Sample Wt/Vol:	5.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD039562.D	1		10/23/13	VD102313

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	41.3		56 - 120		83%	SPK: 50
1868-53-7	Dibromofluoromethane	46		57 - 135		92%	SPK: 50
2037-26-5	Toluene-d8	45.4		67 - 123		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		33 - 141		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1453530	6.543				
540-36-3	1,4-Difluorobenzene	2320020	7.658				
3114-55-4	Chlorobenzene-d5	2352240	11.838				
3855-82-1	1,4-Dichlorobenzene-d4	908529	14.19				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	TB-005	SDG No.:	E4195
Lab Sample ID:	E4195-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009881.D	1		10/24/13	VN102413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	5	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	5	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	25	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	5	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	5	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	25	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	5	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	0.75	U	0.4	0.75	5	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	5	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.48	0.75	5	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	5	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	5	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	5	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	5	ug/L
1330-20-7	Total Xylenes	1.5	U	1.38	1.5	15	ug/L
103-65-1	n-propylbenzene	0.5	U	0.45	0.5	5	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.5	U	0.46	0.5	5	ug/L
98-06-6	tert-Butylbenzene	0.5	U	0.44	0.5	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.5	U	0.38	0.5	5	ug/L
135-98-8	sec-Butylbenzene	0.5	U	0.46	0.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	5	ug/L
104-51-8	n-Butylbenzene	0.5	U	0.41	0.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	TB-005	SDG No.:	E4195
Lab Sample ID:	E4195-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009881.D	1		10/24/13	VN102413

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
17060-07-0	1,2-Dichloroethane-d4	43.9		61 - 141		88%	SPK: 50
1868-53-7	Dibromofluoromethane	44.9		69 - 133		90%	SPK: 50
2037-26-5	Toluene-d8	45.6		65 - 126		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.9		58 - 135		82%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	412736	7.87				
540-36-3	1,4-Difluorobenzene	597405	8.79				
3114-55-4	Chlorobenzene-d5	503413	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	193055	13.56				

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
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B = Analyte Found in Associated Method Blank
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* = Values outside of QC limits
D = Dilution

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E4192-01MS	CAC-CONCRETESANDMS	1,2-Dichloroethane-d4	50	50.07	100		70-120	120
		Dibromofluoromethane	50	49.6	99		57	135
		Toluene-d8	50	46.5	93		84-138	123
		4-Bromofluorobenzene	50	42.6	85		59-113	141
E4192-01MSD	CAC-CONCRETESANDMSD	1,2-Dichloroethane-d4	50	45.3	91		56	120
		Dibromofluoromethane	50	49.69	99		57	135
		Toluene-d8	50	43.82	88		67	123
		4-Bromofluorobenzene	50	42.12	84		33	141
E4195-01	CS-D-19	1,2-Dichloroethane-d4	50	41.6	83		56	120
		Dibromofluoromethane	50	40.49	81		57	135
		Toluene-d8	50	41.94	84		67	123
		4-Bromofluorobenzene	50	43.89	88		33	141
E4195-02	CS-D-20	1,2-Dichloroethane-d4	50	41.32	83		56	120
		Dibromofluoromethane	50	46	92		57	135
		Toluene-d8	50	45.41	91		67	123
		4-Bromofluorobenzene	50	45.32	91		33	141
E4195-04	TB-005	1,2-Dichloroethane-d4	50	43.94	88		61	141
		Dibromofluoromethane	50	44.93	90		69	133
		Toluene-d8	50	45.58	91		65	126
		4-Bromofluorobenzene	50	40.94	82		58	135
VD1023SBL01	VD1023SBL01	1,2-Dichloroethane-d4	50	44.77	90		55	158
		Dibromofluoromethane	50	61.43	123		53	156
		Toluene-d8	50	56.37	113		85	115
		4-Bromofluorobenzene	50	54.11	108		85	120
VD1023SBL02	VD1023SBL02	1,2-Dichloroethane-d4	50	49.58	99		56	120
		Dibromofluoromethane	50	55.54	111		57	135
		Toluene-d8	50	48.4	97		67	123
		4-Bromofluorobenzene	50	47.54	95		33	141
VD1023SBS01	VD1023SBS01	1,2-Dichloroethane-d4	50	42.08	84		55	158
		Dibromofluoromethane	50	50.35	101		53	156
		Toluene-d8	50	55.28	111		85	115
		4-Bromofluorobenzene	50	54.36	109		85	120
VD1023SBS02	VD1023SBS02	1,2-Dichloroethane-d4	50	48.76	98		56	120
		Dibromofluoromethane	50	48.67	97		57	135
		Toluene-d8	50	43.4	87		67	123
		4-Bromofluorobenzene	50	42.81	86		33	141

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VN1024WBL01	VN1024WBL01	1,2-Dichloroethane-d4	50	44.12	88		70	120
		Dibromofluoromethane	50	45.12	90		85	115
		Toluene-d8	50	45.61	91		85	120
		4-Bromofluorobenzene	50	39.98	80		75	120
VN1024WBS01	VN1024WBS01	1,2-Dichloroethane-d4	50	44.45	89		70	120
		Dibromofluoromethane	50	46.34	93		85	115
		Toluene-d8	50	46.3	93		85	120
		4-Bromofluorobenzene	50	44.37	89		75	120
VN1024WBSD0	VN1024WBSD01	1,2-Dichloroethane-d4	50	43.18	86		70	120
		Dibromofluoromethane	50	45.38	91		85	115
		Toluene-d8	50	46.99	94		85	120
		4-Bromofluorobenzene	50	45.29	91		75	120

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

OG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E4192-01MS	**Client Sample ID :**		**CAC-CONCRETESANDMS**				**Datafile :**	VD039582.D			
Vinyl chloride	50.8	0	53.1	ug/Kg	105				56	145	
1,1-Dichloroethene	50.8	0	51.8	ug/Kg	102				64	140	
Acetone	250	0	230	ug/Kg	92				41	145	
Methyl tert-butyl Ether	50.8	0	59.3	ug/Kg	117				64	132	
Methylene Chloride	50.8	0	51.7	ug/Kg	102				59	133	
trans-1,2-Dichloroethene	50.8	0	56.8	ug/Kg	112				64	135	
1,1-Dichloroethane	50.8	0	48	ug/Kg	94				66	135	
2-Butanone	250	0	260	ug/Kg	104				54	137	
Carbon Tetrachloride	50.8	0	54.8	ug/Kg	108				66	137	
cis-1,2-Dichloroethene	50.8	0	52.8	ug/Kg	104				65	132	
Chloroform	50.8	0	59.5	ug/Kg	117				68	132	
1,1,1-Trichloroethane	50.8	0	56.6	ug/Kg	111				69	138	
Benzene	50.8	0	59.6	ug/Kg	117				68	130	
1,2-Dichloroethane	50.8	0	56.4	ug/Kg	111				68	130	
Trichloroethene	50.8	0	50.4	ug/Kg	99				54	149	
Toluene	50.8	0	51	ug/Kg	100				65	133	
Tetrachloroethene	50.8	0	49	ug/Kg	96				37	161	
Chlorobenzene	50.8	0	53.1	ug/Kg	105				66	128	
Ethyl Benzene	50.8	0	54.5	ug/Kg	107				65	133	
m/p-Xylenes	100	0	110	ug/Kg	110				62	134	
o-Xylene	50.8	0	51.7	ug/Kg	102				65	133	
N-propylbenzene	50.8	0	57.9	ug/Kg	114				61	136	
1,3,5-Trimethylbenzene	50.8	0	55.9	ug/Kg	110				65	133	
tert-Butylbenzene	50.8	0	56.7	ug/Kg	112				61	139	
1,2,4-Trimethylbenzene	50.8	0	56.8	ug/Kg	112				59	137	
Sec-butylbenzene	50.8	0	56.1	ug/Kg	110				58	138	
1,3-Dichlorobenzene	50.8	0	53.9	ug/Kg	106				60	129	
1,4-Dichlorobenzene	50.8	0	55.9	ug/Kg	110				59	128	
n-Butylbenzene	50.8	0	53.2	ug/Kg	105				45	141	
1,2-Dichlorobenzene	50.8	0	57.7	ug/Kg	114				63	127	
1,4-Dioxane	1000	0	960	ug/Kg	96				50	150	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

DG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260C

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E4192-01MSD	**Client Sample ID :**		**CAC-CONCRETESANDMSD**				**Datafile :**	VD039583.D			
Vinyl chloride	50.8	0	43.9	ug/Kg	86		19		56	145	20
1,1-Dichloroethene	50.8	0	49	ug/Kg	96		6		64	140	20
Acetone	250	0	190	ug/Kg	76		19		41	145	20
Methyl tert-butyl Ether	50.8	0	51.3	ug/Kg	101		14		64	132	20
Methylene Chloride	50.8	0	54.1	ug/Kg	106		5		59	133	20
trans-1,2-Dichloroethene	50.8	0	50.9	ug/Kg	100		11		64	135	20
1,1-Dichloroethane	50.8	0	50.3	ug/Kg	99		5		66	135	20
2-Butanone	250	0	240	ug/Kg	96		8		54	137	20
Carbon Tetrachloride	50.8	0	55.7	ug/Kg	110		2		66	137	20
cis-1,2-Dichloroethene	50.8	0	52.9	ug/Kg	104		0		65	132	20
Chloroform	50.8	0	57.1	ug/Kg	112		4		68	132	20
1,1,1-Trichloroethane	50.8	0	51.3	ug/Kg	101		10		69	138	20
Benzene	50.8	0	59.7	ug/Kg	118		0		68	130	20
1,2-Dichloroethane	50.8	0	60.8	ug/Kg	120		8		68	130	20
Trichloroethene	50.8	0	54.4	ug/Kg	107		8		54	149	20
Toluene	50.8	0	48.6	ug/Kg	96		5		65	133	20
Tetrachloroethene	50.8	0	52.7	ug/Kg	104		7		37	161	20
Chlorobenzene	50.8	0	55.4	ug/Kg	109		4		66	128	20
Ethyl Benzene	50.8	0	52.8	ug/Kg	104		3		65	133	20
m/p-Xylenes	100	0	110	ug/Kg	110		0		62	134	20
o-Xylene	50.8	0	54.7	ug/Kg	108		6		65	133	20
N-propylbenzene	50.8	0	57.7	ug/Kg	114		0		61	136	20
1,3,5-Trimethylbenzene	50.8	0	59.2	ug/Kg	117		6		65	133	20
tert-Butylbenzene	50.8	0	55.6	ug/Kg	109		2		61	139	20
1,2,4-Trimethylbenzene	50.8	0	56.7	ug/Kg	112		0		59	137	20
Sec-butylbenzene	50.8	0	57.5	ug/Kg	113		2		58	138	20
1,3-Dichlorobenzene	50.8	0	56	ug/Kg	110		4		60	129	20
1,4-Dichlorobenzene	50.8	0	53.6	ug/Kg	106		4		59	128	20
n-Butylbenzene	50.8	0	53.7	ug/Kg	106		1		45	141	20
1,2-Dichlorobenzene	50.8	0	58.1	ug/Kg	114		1		63	127	20
1,4-Dioxane	1000	0	1000	ug/Kg	100		4		50	150	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VD039559.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD1023SBS01	Vinyl chloride	20	18.9	ug/Kg	95			60	125	
	1,1-Dichloroethene	20	18.6	ug/Kg	93			65	135	
	Acetone	100	87.4	ug/Kg	87			20	160	
	Methyl tert-butyl Ether	20	18.7	ug/Kg	94			70	131	
	Methylene Chloride	20	20.3	ug/Kg	102			55	140	
	trans-1,2-Dichloroethene	20	18.4	ug/Kg	92			65	135	
	1,1-Dichloroethane	20	17.6	ug/Kg	88			75	125	
	2-Butanone	100	95.2	ug/Kg	95			30	160	
	Carbon Tetrachloride	20	22.3	ug/Kg	112			65	135	
	cis-1,2-Dichloroethene	20	19.9	ug/Kg	100			65	125	
	Chloroform	20	20.6	ug/Kg	103			70	125	
	1,1,1-Trichloroethane	20	20.3	ug/Kg	102			70	135	
	Benzene	20	17.7	ug/Kg	89			75	125	
	1,2-Dichloroethane	20	20.8	ug/Kg	104			70	135	
	Trichloroethene	20	18.4	ug/Kg	92			75	125	
	Toluene	20	22.2	ug/Kg	111			70	125	
	Tetrachloroethene	20	20	ug/Kg	100			65	140	
	Chlorobenzene	20	20	ug/Kg	100			75	125	
	Ethyl Benzene	20	20	ug/Kg	100			75	125	
	m/p-Xylenes	40	39.7	ug/Kg	99			80	125	
	o-Xylene	20	20.6	ug/Kg	103			75	125	
	N-propylbenzene	20	20.6	ug/Kg	103			65	135	
	1,3,5-Trimethylbenzene	20	19	ug/Kg	95			65	135	
	tert-Butylbenzene	20	19.3	ug/Kg	97			65	130	
	1,2,4-Trimethylbenzene	20	20.6	ug/Kg	103			65	135	
	Sec-butylbenzene	20	19.6	ug/Kg	98			65	130	
	1,3-Dichlorobenzene	20	19.6	ug/Kg	98			70	125	
	1,4-Dichlorobenzene	20	19.6	ug/Kg	98			70	125	
	n-Butylbenzene	20	19.5	ug/Kg	98			65	140	
	1,2-Dichlorobenzene	20	18.9	ug/Kg	95			75	120	
	1,4-Dioxane	400	380	ug/Kg	95			50	150	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260C **Datafile :** VD039576.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD1023SBS02	Vinyl chloride	20	20	ug/Kg	100			67	130	
	1,1-Dichloroethene	20	20.2	ug/Kg	101			74	130	
	Acetone	100	89.8	ug/Kg	90			57	135	
	Methyl tert-butyl Ether	20	20.5	ug/Kg	103			76	123	
	Methylene Chloride	20	20	ug/Kg	100			73	134	
	trans-1,2-Dichloroethene	20	19.6	ug/Kg	98			76	125	
	1,1-Dichloroethane	20	17.7	ug/Kg	89			78	124	
	2-Butanone	100	88.9	ug/Kg	89			68	132	
	Carbon Tetrachloride	20	19.1	ug/Kg	96			76	127	
	cis-1,2-Dichloroethene	20	18.1	ug/Kg	91			78	122	
	Chloroform	20	21.8	ug/Kg	109			79	122	
	1,1,1-Trichloroethane	20	19.9	ug/Kg	100			76	126	
	Benzene	20	21.3	ug/Kg	106			79	124	
	1,2-Dichloroethane	20	21.1	ug/Kg	106			78	124	
	Trichloroethene	20	19	ug/Kg	95			78	124	
	Toluene	20	17.8	ug/Kg	89			78	124	
	Tetrachloroethene	20	18.2	ug/Kg	91			67	134	
	Chlorobenzene	20	19.8	ug/Kg	99			80	121	
	Ethyl Benzene	20	21	ug/Kg	105			80	123	
	m/p-Xylenes	40	37.9	ug/Kg	95			79	126	
	o-Xylene	20	19.3	ug/Kg	97			80	122	
	N-propylbenzene	20	19.1	ug/Kg	96			80	125	
	1,3,5-Trimethylbenzene	20	18.9	ug/Kg	95			81	123	
	tert-Butylbenzene	20	18.8	ug/Kg	94			81	123	
	1,2,4-Trimethylbenzene	20	19.2	ug/Kg	96			81	122	
	Sec-butylbenzene	20	18.4	ug/Kg	92			81	126	
	1,3-Dichlorobenzene	20	17.5	ug/Kg	88			82	120	
	1,4-Dichlorobenzene	20	17.7	ug/Kg	89			81	120	
	n-Butylbenzene	20	17.5	ug/Kg	88			75	129	
	1,2-Dichlorobenzene	20	18.6	ug/Kg	93			82	118	
	1,4-Dioxane	400	370	ug/Kg	93			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260-Low **Datafile :** VN009879.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1024WBS01	Vinyl chloride	20	17.6	ug/L	88			50	145	
	1,1-Dichloroethene	20	17.5	ug/L	88			70	130	
	Acetone	100	93.3	ug/L	93			40	140	
	Methyl tert-butyl Ether	20	17.9	ug/L	90			65	125	
	Methylene Chloride	20	17.9	ug/L	90			55	140	
	trans-1,2-Dichloroethene	20	17.6	ug/L	88			60	140	
	1,1-Dichloroethane	20	18	ug/L	90			70	135	
	2-Butanone	100	90.9	ug/L	91			30	150	
	Carbon Tetrachloride	20	18.9	ug/L	95			65	140	
	cis-1,2-Dichloroethene	20	17.7	ug/L	89			70	125	
	Chloroform	20	18	ug/L	90			65	135	
	1,1,1-Trichloroethane	20	17.9	ug/L	90			65	130	
	Benzene	20	18.2	ug/L	91			80	120	
	1,2-Dichloroethane	20	18.2	ug/L	91			70	130	
	Trichloroethene	20	17.8	ug/L	89			70	125	
	Toluene	20	18.2	ug/L	91			75	120	
	Tetrachloroethene	20	18.5	ug/L	93			45	150	
	Chlorobenzene	20	18.5	ug/L	93			80	120	
	Ethyl Benzene	20	18.4	ug/L	92			75	125	
	m/p-Xylenes	40	36.8	ug/L	92			75	130	
	o-Xylene	20	18.5	ug/L	93			80	120	
	N-propylbenzene	20	19.1	ug/L	96			70	130	
	1,3,5-Trimethylbenzene	20	19.5	ug/L	98			75	130	
	tert-Butylbenzene	20	19.4	ug/L	97			70	130	
	1,2,4-Trimethylbenzene	20	19.5	ug/L	98			75	130	
	Sec-butylbenzene	20	19.4	ug/L	97			70	125	
	1,3-Dichlorobenzene	20	19.4	ug/L	97			75	125	
	1,4-Dichlorobenzene	20	18.9	ug/L	95			75	125	
	n-Butylbenzene	20	20	ug/L	100			70	135	
	1,2-Dichlorobenzene	20	19.4	ug/L	97			70	120	
	1,4-Dioxane	400	360	ug/L	90			50	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8260-Low **Datafile :** VN009880.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1024WBSD01	Vinyl chloride	20	17.2	ug/L	86	2		50	145	20
	1,1-Dichloroethene	20	16.8	ug/L	84	5		70	130	20
	Acetone	100	89.8	ug/L	90	3		40	140	20
	Methyl tert-butyl Ether	20	17.4	ug/L	87	3		65	125	20
	Methylene Chloride	20	17.5	ug/L	88	2		55	140	20
	trans-1,2-Dichloroethene	20	16.8	ug/L	84	5		60	140	20
	1,1-Dichloroethane	20	17.4	ug/L	87	3		70	135	20
	2-Butanone	100	88.6	ug/L	89	2		30	150	20
	Carbon Tetrachloride	20	18.2	ug/L	91	4		65	140	20
	cis-1,2-Dichloroethene	20	17.2	ug/L	86	3		70	125	20
	Chloroform	20	17.4	ug/L	87	3		65	135	20
	1,1,1-Trichloroethane	20	17.3	ug/L	86	5		65	130	20
	Benzene	20	17.7	ug/L	89	2		80	120	20
	1,2-Dichloroethane	20	17.8	ug/L	89	2		70	130	20
	Trichloroethene	20	17.1	ug/L	86	3		70	125	20
	Toluene	20	18.1	ug/L	91	0		75	120	20
	Tetrachloroethene	20	17.4	ug/L	87	7		45	150	20
	Chlorobenzene	20	17.9	ug/L	90	3		80	120	20
	Ethyl Benzene	20	17.8	ug/L	89	3		75	125	20
	m/p-Xylenes	40	35.6	ug/L	89	3		75	130	20
	o-Xylene	20	18	ug/L	90	3		80	120	20
	N-propylbenzene	20	18.4	ug/L	92	4		70	130	20
	1,3,5-Trimethylbenzene	20	18.7	ug/L	94	4		75	130	20
	tert-Butylbenzene	20	19	ug/L	95	2		70	130	20
	1,2,4-Trimethylbenzene	20	18.9	ug/L	95	3		75	130	20
	Sec-butylbenzene	20	18.8	ug/L	94	3		70	125	20
	1,3-Dichlorobenzene	20	18.3	ug/L	92	5		75	125	20
	1,4-Dichlorobenzene	20	18.2	ug/L	91	4		75	125	20
	n-Butylbenzene	20	18.4	ug/L	92	8		70	135	20
	1,2-Dichlorobenzene	20	18.9	ug/L	95	2		70	120	20
	1,4-Dioxane	400	350	ug/L	88	2		50	150	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD1023SBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039558.D Lab Sample ID: VD1023SBL01

Date Analyzed: 10/23/2013 Time Analyzed: 16:01

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD1023SBS01	VD1023SBS01	VD039559.D	10/23/2013
CS-D-19	E4195-01	VD039561.D	10/23/2013
CS-D-20	E4195-02	VD039562.D	10/23/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD1023SBL02

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039575.D Lab Sample ID: VD1023SBL02

Date Analyzed: 10/24/2013 Time Analyzed: 01:38

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD1023SBS02	VD1023SBS02	VD039576.D	10/24/2013
CAC-CONCRETESANDMS	E4192-01MS	VD039582.D	10/24/2013
CAC-CONCRETESANDMSD	E4192-01MSD	VD039583.D	10/24/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1024WBL01

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VN009878.D Lab Sample ID: VN1024WBL01

Date Analyzed: 10/24/2013 Time Analyzed: 17:43

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1024WBS01	VN1024WBS01	VN009879.D	10/24/2013
VN1024WBSD01	VN1024WBSD01	VN009880.D	10/24/2013
TB-005	E4195-04	VN009881.D	10/24/2013

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039550.D BFB Injection Date: 10/23/2013

Instrument ID: MSVOA_D BFB Injection Time: 10:57

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	47.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.2 (0.3) 1
174	50.0 - 100.0% of mass 95	82.2
175	5.0 - 9.0% of mass 174	5.6 (6.8) 1
176	95.0 - 101.0% of mass 174	79.6 (96.8) 1
177	5.0 - 9.0% of mass 176	4.6 (5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VD039551.D	10/23/2013	11:39
VSTDICC010	VSTDICC010	VD039552.D	10/23/2013	12:06
VSTDICC020	VSTDICC020	VD039553.D	10/23/2013	12:33
VSTDICCC050	VSTDICCC050	VD039554.D	10/23/2013	12:59
VSTDICC100	VSTDICC100	VD039555.D	10/23/2013	13:27
VSTDICC200	VSTDICC200	VD039556.D	10/23/2013	13:54
VD1023SBL01	VD1023SBL01	VD039558.D	10/23/2013	16:01
VD1023SBS01	VD1023SBS01	VD039559.D	10/23/2013	16:38
CS-D-19	E4195-01	VD039561.D	10/23/2013	17:33
CS-D-20	E4195-02	VD039562.D	10/23/2013	18:00

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039573.D BFB Injection Date: 10/23/2013

Instrument ID: MSVOA_D BFB Injection Time: 23:52

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.2 (0.2) 1
174	50.0 - 100.0% of mass 95	70.9
175	5.0 - 9.0% of mass 174	5.1 (7.1) 1
176	95.0 - 101.0% of mass 174	69.6 (98.3) 1
177	5.0 - 9.0% of mass 176	4.5 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD039574.D	10/24/2013	00:45
VD1023SBL02	VD1023SBL02	VD039575.D	10/24/2013	01:38
VD1023SBS02	VD1023SBS02	VD039576.D	10/24/2013	02:04
CAC-CONCRETESANDMS	E4192-01MS	VD039582.D	10/24/2013	05:10
CAC-CONCRETESANDMSD	E4192-01MSD	VD039583.D	10/24/2013	05:37

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VN009788.D BFB Injection Date: 10/22/2013

Instrument ID: MSVOA_N BFB Injection Time: 10:03

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	51.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.7 (0.7) 1
174	50.0 - 100.0% of mass 95	97.6
175	5.0 - 9.0% of mass 174	6.9 (7) 1
176	95.0 - 101.0% of mass 174	95.4 (97.7) 1
177	5.0 - 9.0% of mass 176	5.8 (6.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN009789.D	10/22/2013	11:49
VSTDICC005	VSTDICC005	VN009790.D	10/22/2013	12:30
VSTDICC020	VSTDICC020	VN009791.D	10/22/2013	12:58
VSTDICCC050	VSTDICCC050	VN009792.D	10/22/2013	13:25
VSTDICC100	VSTDICC100	VN009793.D	10/22/2013	13:53
VSTDICC200	VSTDICC200	VN009794.D	10/22/2013	14:21

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VN009876.D BFB Injection Date: 10/24/2013

Instrument ID: MSVOA_N BFB Injection Time: 15:21

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	51.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.9 (0.9) 1
174	50.0 - 100.0% of mass 95	95
175	5.0 - 9.0% of mass 174	6.9 (7.2) 1
176	95.0 - 101.0% of mass 174	92.3 (97.1) 1
177	5.0 - 9.0% of mass 176	6 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN009877.D	10/24/2013	16:30
VN1024WBL01	VN1024WBL01	VN009878.D	10/24/2013	17:43
VN1024WBS01	VN1024WBS01	VN009879.D	10/24/2013	18:18
VN1024WBSD01	VN1024WBSD01	VN009880.D	10/24/2013	18:46
TB-005	E4195-04	VN009881.D	10/24/2013	19:14

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039554.D Date Analyzed: 10/23/2013

Instrument ID: MSVOA_D Time Analyzed: 12:59

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1438300	6.55	2210150	7.66	2399740	11.84
UPPER LIMIT	2876600	7.05	4420290	8.16	4799490	12.34
LOWER LIMIT	719150	6.05	1105070	7.16	1199870	11.34
EPA SAMPLE NO.						
CS-D-19	1431170	6.55	2491050	7.66	2413190	11.84
CS-D-20	1453530	6.54	2320020	7.66	2352240	11.84
VD1023SBL01	1584010	6.55	2122660	7.66	2373260	11.84
VD1023SBS01	1458780	6.54	2213100	7.66	2465640	11.84

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039554.D Date Analyzed: 10/23/2013

Instrument ID: MSVOA_D Time Analyzed: 12:59

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	854891	14.2				
UPPER LIMIT	1709780	14.7				
LOWER LIMIT	427446	13.7				
EPA SAMPLE NO.						
CS-D-19	910860	14.19				
CS-D-20	908529	14.19				
VD1023SBL01	827517	14.19				
VD1023SBS01	921748	14.19				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039574.D Date Analyzed: 10/24/2013

Instrument ID: MSVOA_D Time Analyzed: 00:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	1339690	6.54	2147760	7.66	2231150	11.83
UPPER LIMIT	2679380	7.04	4295530	8.16	4462310	12.33
LOWER LIMIT	669846	6.04	1073880	7.16	1115580	11.33
EPA SAMPLE NO.						
CAC-CONCRETESANDMS	1298380	6.53	2095730	7.64	2086780	11.82
CAC-CONCRETESANDMSD	1329000	6.54	2070280	7.65	1993940	11.82
VD1023SBL02	1347880	6.54	2176910	7.65	2321120	11.83
VD1023SBS02	1363750	6.54	2271310	7.65	2135500	11.83

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VD039574.D Date Analyzed: 10/24/2013

Instrument ID: MSVOA_D Time Analyzed: 00:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	790249	14.19				
UPPER LIMIT	1580500	14.69				
LOWER LIMIT	395125	13.69				
EPA SAMPLE NO.						
CAC-CONCRETESANDMS	691376	14.19				
CAC-CONCRETESANDMSD	673822	14.18				
VD1023SBL02	767591	14.19				
VD1023SBS02	788930	14.19				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VN009877.D Date Analyzed: 10/24/2013

Instrument ID: MSVOA_N Time Analyzed: 16:30

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	379049	7.86	558132	8.78	499575	11.61
UPPER LIMIT	758098	8.36	1116260	9.28	999150	12.11
LOWER LIMIT	189525	7.36	279066	8.28	249788	11.11
EPA SAMPLE NO.		✓		✓		✓
TB-005	412736	7.87	597405	8.79	503413	11.61
VN1024WBL01	406026	7.87	592169	8.78	493593	11.61
VN1024WBS01	399238	7.87	582263	8.78	504207	11.61
VN1024WBSD01	408207	7.87	587709	8.79	514487	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: VN009877.D Date Analyzed: 10/24/2013

Instrument ID: MSVOA_N Time Analyzed: 16:30

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	233684	13.56				
UPPER LIMIT	467368	14.06				
LOWER LIMIT	116842	13.06				
EPA SAMPLE NO.						
TB-005	193055	13.56				
VN1024WBL01	183473	13.56				
VN1024WBS01	213445	13.56				
VN1024WBSD01	215893	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC			Date Collected:	10/22/13
Project:	Catlin NY			Date Received:	10/23/13
Client Sample ID:	CS-C-08			SDG No.:	E4195
Lab Sample ID:	E4195-03			Matrix:	SOIL
Analytical Method:	SW8270			% Moisture:	7.3
Sample Wt/Vol:	30.04	Units: g		Final Vol:	1000 uL
Soil Aliquot Vol:		uL		Test:	SVOCMS Group1
Extraction Type :		Decanted : N		Level :	LOW
Injection Volume :		GPC Factor : 1.0		GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF066280.D	1	10/23/13	10/24/13	PB73009

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	35.9	U	8.3	35.9	360	ug/Kg
95-48-7	2-Methylphenol	35.9	U	19.5	35.9	360	ug/Kg
65794-96-9	3+4-Methylphenols	35.9	U	18.6	35.9	360	ug/Kg
91-20-3	Naphthalene	35.9	U	12.4	35.9	360	ug/Kg
208-96-8	Acenaphthylene	35.9	U	9	35.9	360	ug/Kg
83-32-9	Acenaphthene	35.9	U	10.1	35.9	360	ug/Kg
132-64-9	Dibenzofuran	35.9	U	14	35.9	360	ug/Kg
86-73-7	Fluorene	35.9	U	13.6	35.9	360	ug/Kg
118-74-1	Hexachlorobenzene	35.9	U	14.7	35.9	360	ug/Kg
87-86-5	Pentachlorophenol	35.9	U	24.6	35.9	360	ug/Kg
85-01-8	Phenanthrene	35.9	U	9.7	35.9	360	ug/Kg
120-12-7	Anthracene	35.9	U	7.3	35.9	360	ug/Kg
206-44-0	Fluoranthene	35.9	U	7.2	35.9	360	ug/Kg
129-00-0	Pyrene	35.9	U	8.6	35.9	360	ug/Kg
56-55-3	Benzo(a)anthracene	35.9	U	17.1	35.9	360	ug/Kg
218-01-9	Chrysene	35.9	U	16.3	35.9	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	35.9	U	11.7	35.9	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	35.9	U	16.9	35.9	360	ug/Kg
50-32-8	Benzo(a)pyrene	35.9	U	7.8	35.9	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.9	U	12	35.9	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	35.9	U	10.3	35.9	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	35.9	U	14.5	35.9	360	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	88.6		28 - 127		59%	SPK: 150
13127-88-3	Phenol-d6	88.5		34 - 127		59%	SPK: 150
4165-60-0	Nitrobenzene-d5	53		31 - 132		53%	SPK: 100
321-60-8	2-Fluorobiphenyl	64.9		39 - 123		65%	SPK: 100
118-79-6	2,4,6-Tribromophenol	94.3		30 - 133		63%	SPK: 150
1718-51-0	Terphenyl-d14	61.8		37 - 115		62%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	82912	4.85				

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Report of Analysis

Client:	VIASANT, LLC			Date Collected:	10/22/13
Project:	Catlin NY			Date Received:	10/23/13
Client Sample ID:	CS-C-08			SDG No.:	E4195
Lab Sample ID:	E4195-03			Matrix:	SOIL
Analytical Method:	SW8270			% Moisture:	7.3
Sample Wt/Vol:	30.04	Units:	g	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF066280.D	1	10/23/13	10/24/13	PB73009

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1146-65-2	Naphthalene-d8	360498	6.1				
15067-26-2	Acenaphthene-d10	190136	7.8				
1517-22-2	Phenanthrene-d10	386056	9.24				
1719-03-5	Chrysene-d12	354941	11.81				
1520-96-3	Perylene-d12	333578	13.09				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Surrogate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E4192-01MS	CAC-CONCRETESANDM	2-Fluorophenol	150	131.92	88	25-121	28	127
		Phenol-d6	150	120.67	80	24-113	34	127
		Nitrobenzene-d5	100	78.70	79	23-120	31	132
		2-Fluorobiphenyl	100	88.56	89	30-115	39	123
		2,4,6-Tribromophenol	150	143.16	95	19-122	30	133
		Terphenyl-d14	100	91.91	92	18-137	37	115
E4192-01MSD	CAC-CONCRETESANDM	2-Fluorophenol	150	121.01	81		28	127
		Phenol-d6	150	112.44	75		34	127
		Nitrobenzene-d5	100	77.94	78		31	132
		2-Fluorobiphenyl	100	88.97	89		39	123
		2,4,6-Tribromophenol	150	137.88	92		30	133
		Terphenyl-d14	100	83.29	83		37	115
E4195-03	CS-C-08	2-Fluorophenol	150	88.63	59		28	127
		Phenol-d6	150	88.50	59		34	127
		Nitrobenzene-d5	100	53.03	53		31	132
		2-Fluorobiphenyl	100	64.88	65		39	123
		2,4,6-Tribromophenol	150	94.34	63		30	133
		Terphenyl-d14	100	61.80	62		37	115
PB73009BL	PB73009BL	2-Fluorophenol	150	115.12	77		28	127
		Phenol-d6	150	101.55	68		34	127
		Nitrobenzene-d5	100	63.23	63		31	132
		2-Fluorobiphenyl	100	71.53	72		39	123
		2,4,6-Tribromophenol	150	119.63	80		30	133
		Terphenyl-d14	100	80.88	81		37	115
PB73009BS	PB73009BS	2-Fluorophenol	150	124.48	83		28	127
		Phenol-d6	150	125.72	84		34	127
		Nitrobenzene-d5	100	78.07	78		31	132
		2-Fluorobiphenyl	100	84.38	84		39	123
		2,4,6-Tribromophenol	150	122.84	82		30	133
		Terphenyl-d14	100	92.67	93		37	115

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E4192-01MS	**Client Sample ID: CAC-CONCRETESANDMS**						**DataFile: BF066283.D**				
Phenol	1700	0	1500	ug/Kg	88				40	115	
2-Methylphenol	1700	0	1500	ug/Kg	88				48	111	
3+4-Methylphenols	1700	0	1600	ug/Kg	94				46	115	
Naphthalene	1700	0	1500	ug/Kg	88				42	121	
Acenaphthylene	1700	0	1500	ug/Kg	88				45	117	
Acenaphthene	1700	0	1400	ug/Kg	82				45	118	
Dibenzofuran	1700	0	1500	ug/Kg	88				45	118	
Fluorene	1700	0	1500	ug/Kg	88				41	121	
Hexachlorobenzene	1700	0	1600	ug/Kg	94				48	114	
Pentachlorophenol	3400	0	2800	ug/Kg	82				15	145	
Phenanthrene	1700	0	1500	ug/Kg	88				29	138	
Anthracene	1700	0	1600	ug/Kg	94				45	120	
Fluoranthene	1700	0	1600	ug/Kg	94				33	133	
Pyrene	1700	0	1600	ug/Kg	94				31	135	
Benzo(a)anthracene	1700	0	1600	ug/Kg	94				35	132	
Chrysene	1700	0	1500	ug/Kg	88				34	131	
Benzo(b)fluoranthene	1700	0	1600	ug/Kg	94				35	128	
Benzo(k)fluoranthene	1700	0	1700	ug/Kg	100				39	117	
Benzo(a)pyrene	1700	0	1600	ug/Kg	94				35	129	
Indeno(1,2,3-cd)pyrene	1700	0	1600	ug/Kg	94				30	140	
Dibenz(a,h)anthracene	1700	0	1600	ug/Kg	94				18	147	
Benzo(g,h,i)perylene	1700	0	1600	ug/Kg	94				31	132	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E4192-01MSD	**Client Sample ID:**		**CAC-CONCRETESANDMSD**				**DataFile:**	**BF066284.D**			
Phenol	1700	0	1400	ug/Kg	82		7		40	115	20
2-Methylphenol	1700	0	1300	ug/Kg	76		15		48	111	20
3+4-Methylphenols	1700	0	1400	ug/Kg	82		14		46	115	20
Naphthalene	1700	0	1400	ug/Kg	82		7		42	121	20
Acenaphthylene	1700	0	1400	ug/Kg	82		7		45	117	20
Acenaphthene	1700	0	1300	ug/Kg	76		8		45	118	20
Dibenzofuran	1700	0	1400	ug/Kg	82		7		45	118	20
Fluorene	1700	0	1400	ug/Kg	82		7		41	121	20
Hexachlorobenzene	1700	0	1400	ug/Kg	82		14		48	114	20
Pentachlorophenol	3400	0	2400	ug/Kg	71		14		15	145	20
Phenanthrene	1700	0	1400	ug/Kg	82		7		29	138	20
Anthracene	1700	0	1400	ug/Kg	82		14		45	120	20
Fluoranthene	1700	0	1400	ug/Kg	82		14		33	133	20
Pyrene	1700	0	1400	ug/Kg	82		14		31	135	20
Benzo(a)anthracene	1700	0	1400	ug/Kg	82		14		35	132	20
Chrysene	1700	0	1300	ug/Kg	76		15		34	131	20
Benzo(b)fluoranthene	1700	0	1500	ug/Kg	88		7		35	128	20
Benzo(k)fluoranthene	1700	0	1300	ug/Kg	76		27	*	39	117	20
Benzo(a)pyrene	1700	0	1400	ug/Kg	82		14		35	129	20
Indeno(1,2,3-cd)pyrene	1700	0	1400	ug/Kg	82		14		30	140	20
Dibenz(a,h)anthracene	1700	0	1400	ug/Kg	82		14		18	147	20
Benzo(g,h,i)perylene	1700	0	1500	ug/Kg	88		7		31	132	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

DG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8270D **DataFile:** BF066274.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Limits Qual	Low	High	RPD
PB73009BS	Phenol	1700	1400	ug/Kg	82				51	101	
	2-Methylphenol	1700	1400	ug/Kg	82				49	105	
	3+4-Methylphenols	1700	1500	ug/Kg	88				52	102	
	Naphthalene	1700	1400	ug/Kg	82				53	103	
	Acenaphthylene	1700	1400	ug/Kg	82				57	101	
	Acenaphthene	1700	1400	ug/Kg	82				57	102	
	Dibenzofuran	1700	1500	ug/Kg	88				57	100	
	Fluorene	1700	1500	ug/Kg	88				57	101	
	Hexachlorobenzene	1700	1400	ug/Kg	82				54	106	
	Pentachlorophenol	3300	2700	ug/Kg	82				49	116	
	Phenanthrene	1700	1500	ug/Kg	88				58	101	
	Anthracene	1700	1400	ug/Kg	82				57	102	
	Fluoranthene	1700	1400	ug/Kg	82				56	102	
	Pyrene	1700	1400	ug/Kg	82				56	106	
	Benzo(a)anthracene	1700	1400	ug/Kg	82				56	103	
	Chrysene	1700	1500	ug/Kg	88				58	102	
	Benzo(b)fluoranthene	1700	1200	ug/Kg	71				56	103	
	Benzo(k)fluoranthene	1700	1700	ug/Kg	100				55	102	
	Benzo(a)pyrene	1700	1500	ug/Kg	88				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82				50	113	
	Dibenz(a,h)anthracene	1700	1500	ug/Kg	88				52	119	
	Benzo(g,h,i)perylene	1700	1500	ug/Kg	88				56	105	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB73009BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab File ID: BF066275.D Lab Sample ID: PB73009BL

Instrument ID: BNA_F Date Extracted: 10/23/2013

Matrix: (soil/water) SOIL Date Analyzed: 10/24/2013

Level: (low/med) LOW Time Analyzed: 14:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
CS-C-08	E4195-03	BF066280.D	10/24/2013
CAC-CONCRETESANDMS	E4192-01MS	BF066283.D	10/24/2013
CAC-CONCRETESANDMSD	E4192-01MSD	BF066284.D	10/24/2013
PB73009BS	PB73009BS	BF066274.D	10/24/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E4195 SDG NO.: E4195

Lab File ID: BF066097.D DFTPP Injection Date: 10/15/2013

Instrument ID: BNA_F DFTPP Injection Time: 12:56

m/e	ION ABUNDANCE CRITERIA		% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30-60	59.5 ✓
68	Less than 2.0% of mass 69		0.2 (0.4) 1
69	Mass 69 relative abundance		46.6
70	Less than 2.0% of mass 69		0.2 (0.3) 1
127	10.0 - 80.0% of mass 198	40-80	52.8
197	Less than 2.0% of mass 198	<1	0.0
198	Base Peak, 100% relative abundance		100
199	5.0 to 9.0% of mass 198		6.4
275	10.0 - 60.0% of mass 198	10-30	25
365	Greater than 1% of mass 198		2.9
441	Present, but less than mass 443		11.2
442	Greater than 50% of mass 198		69.8
443	15.0 - 24.0% of mass 442	17-23	14.4 (20.7) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC010	SSTDICC010	BF066098.D	10/15/2013	13:22
SSTDICC025	SSTDICC025	BF066099.D	10/15/2013	13:49
SSTDICCC040	SSTDICCC040	BF066100.D	10/15/2013	14:15
SSTDICC050	SSTDICC050	BF066101.D	10/15/2013	14:41
SSTDICC060	SSTDICC060	BF066102.D	10/15/2013	15:06
SSTDICC080	SSTDICC080	BF066103.D	10/15/2013	15:32 ✓

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM SAS No.: E4195 SDG NO.: E4195

Lab File ID: BF066269.D DFTPP Injection Date: 10/24/2013

Instrument ID: BNA_F DFTPP Injection Time: 10:47

m/e	ION ABUNDANCE CRITERIA		% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30 - 60	52.2
68	Less than 2.0% of mass 69		0.8 (1.8) 1
69	Mass 69 relative abundance		42.7
70	Less than 2.0% of mass 69		0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	40 - 60	54.5
197	Less than 2.0% of mass 198	< 1	0.2
198	Base Peak, 100% relative abundance		100
199	5.0 to 9.0% of mass 198		7.2
275	10.0 - 60.0% of mass 198	10 - 30	23.5
365	Greater than 1% of mass 198		2.8
441	Present, but less than mass 443		12.9
442	Greater than 50% of mass 198		81.5
443	15.0 - 24.0% of mass 442	17 - 23	15.5 (19) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF066270.D	10/24/2013	12:44
PB73009BS	PB73009BS	BF066274.D	10/24/2013	14:31
PB73009BL	PB73009BL	BF066275.D	10/24/2013	14:57
CS-C-08	E4195-03	BF066280.D	10/24/2013	17:07
CAC-CONCRETESANDMS	E4192-01MS	BF066283.D	10/24/2013	18:26
CAC-CONCRETESANDMSD	E4192-01MSD	BF066284.D	10/24/2013	18:52

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/24/2013

Lab File ID: BF066270.D Time Analyzed: 12:44

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	93267	4.84	428285	6.10	233409	7.80
	UPPER LIMIT	186534	5.34	856570	6.6	466818	8.3
	LOWER LIMIT	46633.5	4.34	214143	5.6	116705	7.3
	EPA SAMPLE NO.						
01	CAC-CONCRETESANDMS	92227	4.85	406305	6.1	237134	7.81
02	CAC-CONCRETESANDMSD	87778	4.85	368786	6.1	205968	7.81
03	CS-C-08	82912	4.85	360498	6.1	190136	7.8
04	PB73009BL	97633	4.84	425421	6.1	247866	7.8
05	PB73009BS	106207	4.84	472127	6.1	260066	7.8

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/24/2013

Lab File ID: BF066270.D Time Analyzed: 12:44

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	423147	9.24	354996	11.82	348664	13.1
	UPPER LIMIT	846294	9.74	709992	12.32	697328	13.6
	LOWER LIMIT	211574	8.74	177498	11.32	174332	12.6
	EPA SAMPLE NO.						
01	CAC-CONCRETESANDMS	435555	9.24	356541	11.81	340627	13.09
02	CAC-CONCRETESANDMSD	417581	9.24	358898	11.81	341539	13.09
03	CS-C-08	386056	9.24	354941	11.81	333578	13.09
04	PB73009BL	471134	9.23	408498	11.81	369199	13.10
05	PB73009BS	492110	9.24	398861	11.82	375369	13.10

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-C-08	SDG No.:	E4195
Lab Sample ID:	E4195-03	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	7.3 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 ul
Soil Aliquot Vol:	ul	Test:	PESTICIDE Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL005909.D	1	10/23/13	10/24/13	PB73008

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
319-84-6	alpha-BHC	0.355	U	0.14	0.355	1.8	ug/kg
319-85-7	beta-BHC	0.355	U	0.194	0.355	1.8	ug/kg
319-86-8	delta-BHC	0.355	U	0.108	0.355	1.8	ug/kg
58-89-9	gamma-BHC (Lindane)	0.355	U	0.161	0.355	1.8	ug/kg
76-44-8	Heptachlor	0.355	U	0.151	0.355	1.8	ug/kg
309-00-2	Aldrin	0.355	U	0.108	0.355	1.8	ug/kg
959-98-8	Endosulfan I	0.355	U	0.161	0.355	1.8	ug/kg
60-57-1	Dieldrin	0.355	U	0.14	0.355	1.8	ug/kg
72-55-9	4,4-DDE	0.355	U	0.215	0.355	1.8	ug/kg
72-20-8	Endrin	0.355	U	0.194	0.355	1.8	ug/kg
33213-65-9	Endosulfan II	0.355	U	0.151	0.355	1.8	ug/kg
72-54-8	4,4-DDD	0.355	U	0.183	0.355	1.8	ug/kg
1031-07-8	Endosulfan Sulfate	0.355	U	0.161	0.355	1.8	ug/kg
50-29-3	4,4-DDT	0.355	U	0.151	0.355	1.8	ug/kg
5103-71-9	alpha-Chlordane	0.355	U	0.151	0.355	1.8	ug/kg
SURROGATES							
2051-24-3	Decachlorobiphenyl	17.1		10 - 169		86%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		31 - 151		101%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PL005824.D	PIBLK-PL005824.D	Decachlorobiphenyl	1	20	20.6	103		10	192
		Tetrachloro-m-xylene	1	20	20.73	104		10	172
		Decachlorobiphenyl	2	20	19.87	99		10	192
		Tetrachloro-m-xylene	2	20	20.27	101		10	172
I.BLK-PL005898.D	PIBLK-PL005898.D	Decachlorobiphenyl	1	20	18.25	91		10	192
		Tetrachloro-m-xylene	1	20	21.62	108		10	172
		Decachlorobiphenyl	2	20	19.37	97		10	192
		Tetrachloro-m-xylene	2	20	21.23	106		10	172
PB73008BL	PB73008BL	Decachlorobiphenyl	1	20	16.9	85		10	169
		Tetrachloro-m-xylene	1	20	19.12	96		31	151
		Decachlorobiphenyl	2	20	17.99	90		10	169
		Tetrachloro-m-xylene	2	20	18.59	93		31	151
PB73008BS	PB73008BS	Decachlorobiphenyl	1	20	18.63	93		10	169
		Tetrachloro-m-xylene	1	20	22.28	111		31	151
		Decachlorobiphenyl	2	20	19.41	97		10	169
		Tetrachloro-m-xylene	2	20	19.9	100		31	151
E4195-03	CS-C-08	Decachlorobiphenyl	1	20	17.1	86		10	169
		Tetrachloro-m-xylene	1	20	20.22	101		31	151
		Decachlorobiphenyl	2	20	17.45	87		10	169
		Tetrachloro-m-xylene	2	20	21.08	105		31	151
I.BLK-PL005910.D	PIBLK-PL005910.D	Decachlorobiphenyl	1	20	19.25	96		10	192
		Tetrachloro-m-xylene	1	20	21.76	109		10	172
		Decachlorobiphenyl	2	20	19.66	98		10	192
		Tetrachloro-m-xylene	2	20	21.15	106		10	172
E4189-01MS	S-1MS	Decachlorobiphenyl	1	20	16.22	81		10	169
		Tetrachloro-m-xylene	1	20	21.39	107		31	151
		Decachlorobiphenyl	2	20	19.94	100		10	169
		Tetrachloro-m-xylene	2	20	19.58	98		31	151
E4189-01MSD	S-1MSD	Decachlorobiphenyl	1	20	16.26	81		10	169
		Tetrachloro-m-xylene	1	20	20.65	103		31	151
		Decachlorobiphenyl	2	20	19.35	97		10	169
		Tetrachloro-m-xylene	2	20	19.84	99		31	151
I.BLK-PL005914.D	PIBLK-PL005914.D	Decachlorobiphenyl	1	20	19.4	97		10	192
		Tetrachloro-m-xylene	1	20	21.78	109		10	172
		Decachlorobiphenyl	2	20	20.17	101		10	192
		Tetrachloro-m-xylene	2	20	21.52	108		10	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL005912.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**S-1MS**											
E4189-01MS	alpha-BHC	19	0	19.5	ug/kg	103				16	147	
	beta-BHC	19	0	20.5	ug/kg	108				25	146	
	delta-BHC	19	0	18.3	ug/kg	96				11	146	
	gamma-BHC (Lindane)	19	0	20.4	ug/kg	107				21	147	
	Heptachlor	19	0	19.5	ug/kg	103				23	143	
	Aldrin	19	0	19.2	ug/kg	101				11	152	
	Endosulfan I	19	0	20.1	ug/kg	106				10	164	
	Dieldrin	19	0	19.3	ug/kg	102				10	162	
	4,4-DDE	19	0	19.9	ug/kg	105				10	174	
	Endrin	19	0	20.3	ug/kg	107				10	171	
	Endosulfan II	19	0	20.2	ug/kg	106				11	146	
	4,4-DDD	19	0	19.2	ug/kg	101				10	150	
	Endosulfan sulfate	19	0	18.8	ug/kg	99				10	152	
	4,4-DDT	19	0	20.5	ug/kg	108				10	192	
	alpha-Chlordane	19	0	19.5	ug/kg	103				10	157	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8081B **DataFile :** PL005913.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**S-1MSD**											
E4189-01MSD	alpha-BHC	19	0	19.8	ug/kg	104		1		16	147	20
	beta-BHC	19	0	19.9	ug/kg	105		3		25	146	20
	delta-BHC	19	0	18.1	ug/kg	95		1		11	146	20
	gamma-BHC (Lindane)	19	0	20.6	ug/kg	108		1		21	147	20
	Heptachlor	19	0	19.7	ug/kg	104		1		23	143	20
	Aldrin	19	0	19.3	ug/kg	102		1		11	152	20
	Endosulfan I	19	0	20	ug/kg	105		1		10	164	20
	Dieldrin	19	0	19	ug/kg	100		2		10	162	20
	4,4-DDE	19	0	19.5	ug/kg	103		2		10	174	20
	Endrin	19	0	20.5	ug/kg	108		1		10	171	20
	Endosulfan II	19	0	20.4	ug/kg	107		1		11	146	20
	4,4-DDD	19	0	19.1	ug/kg	101		0		10	150	20
	Endosulfan sulfate	19	0	18.8	ug/kg	99		0		10	152	20
	4,4-DDT	19	0	20.5	ug/kg	108		0		10	192	20
	alpha-Chlordane	19	0	19.4	ug/kg	102		1		10	157	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8081B **Datafile :** PL005902.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB73008BS	alpha-BHC	16.7	16.5	ug/kg	99				84	123	
	beta-BHC	16.7	16.4	ug/kg	98				82	123	
	delta-BHC	16.7	15.6	ug/kg	93				83	126	
	gamma-BHC (Lindane)	16.7	17.2	ug/kg	103				83	125	
	Heptachlor	16.7	16.6	ug/kg	99				83	122	
	Aldrin	16.7	17.4	ug/kg	104				82	124	
	Endosulfan I	16.7	17.1	ug/kg	102				81	124	
	Dieldrin	16.7	17.3	ug/kg	104				85	121	
	4,4-DDE	16.7	17.1	ug/kg	102				81	123	
	Endrin	16.7	16.3	ug/kg	98				76	130	
	Endosulfan II	16.7	17.5	ug/kg	105				80	125	
	4,4-DDD	16.7	17.3	ug/kg	104				80	131	
	Endosulfan sulfate	16.7	16.3	ug/kg	98				81	122	
	4,4-DDT	16.7	16	ug/kg	96				70	129	
	alpha-Chlordane	16.7	17.4	ug/kg	104				84	120	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB73008BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab Sample ID: PB73008BL Lab File ID: PL005901.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 10/23/2013

Date Analyzed (1): 10/24/2013 Date Analyzed (2): 10/24/2013

Time Analyzed (1): 10:20 Time Analyzed (2): 10:20

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB73008BS	PB73008BS	PL005902.D	10/24/2013	10/24/2013
CS-C-08	E4195-03	PL005909.D	10/24/2013	10/24/2013
S-1MS	E4189-01MS	PL005912.D	10/24/2013	10/24/2013
S-1MSD	E4189-01MSD	PL005913.D	10/24/2013	10/24/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC		Date Collected:	10/22/13	
Project:	Catlin NY		Date Received:	10/23/13	
Client Sample ID:	CS-C-08		SDG No.:	E4195	
Lab Sample ID:	E4195-03		Matrix:	SOIL	
Analytical Method:	SW8082A		% Moisture:	7.3	Decanted:
Sample Wt/Vol:	30.05 Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC015948.D	1	10/23/13	10/24/13	PB73007

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	3.6	U	3.6	3.6	18.3	ug/kg
11104-28-2	Aroclor-1221	3.6	U	3.6	3.6	18.3	ug/kg
11141-16-5	Aroclor-1232	3.6	U	3.6	3.6	18.3	ug/kg
53469-21-9	Aroclor-1242	3.6	U	3.6	3.6	18.3	ug/kg
12672-29-6	Aroclor-1248	3.6	U	3.6	3.6	18.3	ug/kg
11097-69-1	Aroclor-1254	3.6	U	1.6	3.6	18.3	ug/kg
11096-82-5	Aroclor-1260	3.6	U	3.6	3.6	18.3	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19		10 - 166		95%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.4		60 - 125		92%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
1.BLK-PC015555.D	PIBLK-PC015555.D	Tetrachloro-m-xylene	1	20	18.42	92		35	137
		Decachlorobiphenyl	1	20	19.45	97		40	135
		Tetrachloro-m-xylene	2	20	20.77	104		35	137
		Decachlorobiphenyl	2	20	21.15	106		40	135
1.BLK-PC015937.D	PIBLK-PC015937.D	Tetrachloro-m-xylene	1	20	21.51	108		35	137
		Decachlorobiphenyl	1	20	22.5	113		40	135
		Tetrachloro-m-xylene	2	20	25.24	126		35	137
		Decachlorobiphenyl	2	20	29.17	146	*	40	135
PB73007BL	PB73007BL	Tetrachloro-m-xylene	1	20	19.7	99		10	166
		Decachlorobiphenyl	1	20	20.16	101		60	125
		Tetrachloro-m-xylene	2	20	21.2	106		10	166
		Decachlorobiphenyl	2	20	24.41	122		60	125
E4195-03	CS-C-08	Tetrachloro-m-xylene	1	20	19.05	95		10	166
		Decachlorobiphenyl	1	20	18.4	92		60	125
		Tetrachloro-m-xylene	2	20	22.58	113		10	166
		Decachlorobiphenyl	2	20	21.46	107		60	125
1.BLK-PC015949.D	PIBLK-PC015949.D	Tetrachloro-m-xylene	1	20	22.36	112		35	137
		Decachlorobiphenyl	1	20	23.34	117		40	135
		Tetrachloro-m-xylene	2	20	26.93	135		35	137
		Decachlorobiphenyl	2	20	28.4	142	*	40	135
1.BLK-PC015979.D	PIBLK-PC015979.D	Tetrachloro-m-xylene	1	20	20.03	100		35	137
		Decachlorobiphenyl	1	20	20.33	102		40	135
		Tetrachloro-m-xylene	2	20	22.07	110		35	137
		Decachlorobiphenyl	2	20	19.73	99		40	135
1.BLK-PC016012.D	PIBLK-PC016012.D	Tetrachloro-m-xylene	1	20	23.22	116		35	137
		Decachlorobiphenyl	1	20	23.82	119		40	135
		Tetrachloro-m-xylene	2	20	28.69	143	*	35	137
		Decachlorobiphenyl	2	20	23.59	118		40	135
PB73007BS	PB73007BS	Tetrachloro-m-xylene	1	20	20.81	104		10	166
		Decachlorobiphenyl	1	20	21.59	108		60	125
		Tetrachloro-m-xylene	2	20	24.76	124		10	166
		Decachlorobiphenyl	2	20	24.33	122		60	125
1.BLK-PC016027.D	PIBLK-PC016027.D	Tetrachloro-m-xylene	1	20	24.35	122		35	137
		Decachlorobiphenyl	1	20	23.56	118		40	135
		Tetrachloro-m-xylene	2	20	30.8	154	*	35	137
		Decachlorobiphenyl	2	20	26.89	134		40	135
1.BLK-PC016077.D	PIBLK-PC016077.D	Tetrachloro-m-xylene	1	20	21.33	107		35	137
		Decachlorobiphenyl	1	20	21.47	107		40	135
		Tetrachloro-m-xylene	2	20	22.68	113		35	137
		Decachlorobiphenyl	2	20	22.31	112		40	135
E4192-01MS	CAC-CONCRETESANDMS	Tetrachloro-m-xylene	1	20	21.04	105		10	166
		Decachlorobiphenyl	1	20	22.09	110		60	125
		Tetrachloro-m-xylene	2	20	21.41	107		10	166

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
E4192-01MS	CAC-CONCRETESANDMS	Decachlorobiphenyl	2	20	23.33	117		60	125
E4192-01MSD	CAC-CONCRETESANDMSD	Tetrachloro-m-xylene	1	20	21.61	108		10	166
		Decachlorobiphenyl	1	20	22.5	113		60	125
		Tetrachloro-m-xylene	2	20	21.94	110		10	166
		Decachlorobiphenyl	2	20	24.02	120		60	125
I.BLK-PC016089.D	PIBLK-PC016089.D	Tetrachloro-m-xylene	1	20	22.37	112		35	137
		Decachlorobiphenyl	1	20	21.49	107		40	135
		Tetrachloro-m-xylene	2	20	25.97	130		35	137
		Decachlorobiphenyl	2	20	16.79	84		40	135

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC016079.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CAC-CONCRETESANDMS**											
E4192-01MS	AR1016	67.5	0	74	ug/kg	110				40	140	
	AR1260	67.5	0	83.9	ug/kg	124				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8082A **DataFile :** PC016080.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CAC-CONCRETESANDMSD**											
E4192-01MSD	AR1016	67.6	0	75.6	ug/kg	112		2		40	140	20
	AR1260	67.6	0	84.8	ug/kg	125		1		60	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8082A **Datafile :** PC016024.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB73007BS	AR1016	66.6	85	ug/kg	128				53	140	
	AR1260	66.6	84.7	ug/kg	127				65	130	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB73007BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab Sample ID: PB73007BL Lab File ID: PC015939.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 10/23/2013

Date Analyzed (1): 10/23/2013 Date Analyzed (2): 10/23/2013

Time Analyzed (1): 21:20 Time Analyzed (2): 21:20

Instrument ID (1): ECD_C Instrument ID (2): ECD_C

GC Column (1): RTX-CLPest ID: 0.32 (mm) GC Column (2): RTX-CLPestII ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CS-C-08	E4195-03	PC015948.D	10/24/2013	10/24/2013
PB73007BS	PB73007BS	PC016024.D	10/25/2013	10/25/2013
CAC-CONCRETESANDMS	E4192-01MS	PC016079.D	10/28/2013	10/28/2013
CAC-CONCRETESANDMSD	E4192-01MSD	PC016080.D	10/28/2013	10/28/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-C-08	SDG No.:	E4195
Lab Sample ID:	E4195-03	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	7.3 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide Group1
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE007697.D	1	10/23/13	10/24/13	PB73011

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
93-72-1	2,4,5-TP (Silvex)	18	UJ U	11.7	18	72.2	ug/Kg
SURROGATES							
19719-28-9	2,4-DCAA	187		12 - 189		38%	SPK: 500

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

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Surrogate Summary

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PE007551.D	PIBLK-PE007551.D	2,4-DCAA	1	500	493.81	99		43	172
		2,4-DCAA	2	500	576.69	115		43	172
I.BLK-PE007679.D	PIBLK-PE007679.D	2,4-DCAA	1	500	652.14	130		43	172
		2,4-DCAA	2	500	711.86	142		43	172
PB73011BL	PB73011BL	2,4-DCAA	1	500	341.91	68		12	189
		2,4-DCAA	2	500	389.85	78		12	189
I.BLK-PE007691.D	PIBLK-PE007691.D	2,4-DCAA	1	500	670.06	134		43	172
		2,4-DCAA	2	500	766.45	153		43	172
E4192-02MS	CAC-MASONSANDMS	2,4-DCAA	1	500	151.93	30		12	189
		2,4-DCAA	2	500	147.75	30		12	189
E4192-02MSD	CAC-MASONSANDMSD	2,4-DCAA	1	500	99.57	20		12	189
		2,4-DCAA	2	500	99.3	20		12	189
E4195-03	CS-C-08	2,4-DCAA	1	500	187.74	38		12	189
		2,4-DCAA	2	500	224.49	45		12	189
I.BLK-PE007698.D	PIBLK-PE007698.D	2,4-DCAA	1	500	685.67	137		43	172
		2,4-DCAA	2	500	765.49	153		43	172
PB73011BS	PB73011BS	2,4-DCAA	1	500	505.08	101		12	189
		2,4-DCAA	2	500	400.49	80		12	189
I.BLK-PE007702.D	PIBLK-PE007702.D	2,4-DCAA	1	500	697.82	140		43	172
		2,4-DCAA	2	500	774.28	155		43	172

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007693.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**CAC-MASONSANDMS**											
E4192-02MS	2,4,5-TP(Silvex)	170	0	47.5	ug/Kg	28				13	154	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8151A **DataFile :** PE007694.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**CAC-MASONSANDMSD**											
E4192-02MSD	2,4,5-TP(Silvex)	180	0	29.6	ug/Kg	16		55	*	13	154	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: E4195

Client: VIASANT, LLC

Analytical Method: 8151A **Datafile :** PE007701.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB73011BS	2,4,5-TP(Silvex)	170	180	ug/Kg	106				63	134	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB73011BL

Lab Name: CHEMTECH Contract: VIAS01

Lab Code: CHEM Case No.: E4195 SAS No.: E4195 SDG NO.: E4195

Lab Sample ID: PB73011BL Lab File ID: PE007687.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 10/23/2013

Date Analyzed (1): 10/23/2013 Date Analyzed (2): 10/23/2013

Time Analyzed (1): 21:54 Time Analyzed (2): 21:54

Instrument ID (1): ECD_E Instrument ID (2): ECD_E

GC Column (1): ZB-35-HT ID: 0.25 (mm) GC Column (2): ZB-XLB-HT ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
CAC-MASONSANDMS	E4192-02MS	PE007693.D	10/24/2013	10/24/2013
CAC-MASONSANDMSD	E4192-02MSD	PE007694.D	10/24/2013	10/24/2013
CS-C-08	E4195-03	PE007697.D	10/24/2013	10/24/2013
PB73011BS	PB73011BS	PE007701.D	10/24/2013	10/24/2013

COMMENTS:

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13 09:49:00
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-C-08	SDG No.:	E4195
Lab Sample ID:	E4195-03	Matrix:	SOIL
		% Solid:	92.7

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.135	U	1	0.036	0.135	0.269	mg/Kg	10/24/13	10/25/13 09:57	9012B
Hexavalent Chromium	0.18	J	1	0.086	0.216	0.431	mg/Kg	10/25/13	10/25/13 11:15	7196A
Trivalent Chromium	6.85		1	0.108	0.108	0.108	mg/Kg	10/25/13	10/25/13 00:00	6010B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E4195
Project:	Catlin NY	**RunNo.:**	LB68340

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Cyanide		mg/L	0.24	0.25	96	90-110	10/25/2013
Sample ID:	**ICVPB73060**						
Cyanide		mg/L	0.10	0.10	100	85-115	10/25/2013
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	10/25/2013
Sample ID:	**CCV3**						
Cyanide		mg/L	0.26	0.25	104	90-110	10/25/2013
Sample ID:	**CCV4**						
Cyanide		mg/L	0.25	0.25	100	90-110	10/25/2013

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E4195
Project:	Catlin NY	**RunNo.:**	LB68343

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.48	0.50	96	90-110	10/25/2013
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.49	0.50	98	90-110	10/25/2013
Sample ID: ICV1						
Hexavalent Chromium	mg/L	0.49	0.50	98	90-110	10/25/2013

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Initial and Continuing Calibration Verification

Client:	VIASANT, LLC	**SDG No.:**	E4195
Project:	Catlin NY	**RunNo.:**	LB68343

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E4195

Project: Catlin NY **RunNo.:** LB68340

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	10/25/2013
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	10/25/2013
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	10/25/2013
Sample ID:	CCB3						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	10/25/2013
Sample ID:	CCB4						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	10/25/2013

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Initial and Continuing Calibration Blank Summary

Client: VIASANT, LLC **SDG No.:** E4195

Project: Catlin NY **RunNo.:** LB68343

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	10/25/2013
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	10/25/2013
Sample ID: ICB1						
Hexavalent Chromium	mg/L	< 0.010	+/-0.010	0.002	0.010	10/25/2013

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Initial and Continuing Calibration Blank Summary

Client:	VIASANT, LLC	**SDG No.:**	E4195
Project:	Catlin NY	**RunNo.:**	LB68343

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: VIASANT, LLC **SDG No.:** E4195

Project: Catlin NY

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: LB68340BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	10/25/2013
Sample ID: LB68343BLS						
Hexavalent Chromium	mg/Kg	< 0.400	+/-0.400	0.080	0.400	10/25/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: 13147-CA-C-06S

SDG No.: E4195
Sample ID: E4190-02
Percent Solids for Spike Sample: 97

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.100		0.034	U	2.06	1	102		10/25/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: 13147-CA-C-06SD

SDG No.: E4195
Sample ID: E4190-02
Percent Solids for Spike Sample: 97

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	48-158	2.110		0.034	U	2.06	1	102		10/25/2013

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Matrix Spike Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-08S

SDG No.: E4195
Sample ID: E4195-03
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1200.00		0.18	J	1400.00	40	86.00		10/25/2013
Hexavalent Chromium	mg/Kg	85-115	40.00		0.18	J	43.00	2	93		10/25/2013
Hexavalent Chromium	mg/Kg	75-125	38.00		0.18	J	43.00	2	88		10/25/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
SDG No.: E4195
Project: Catlin NY
Sample ID: E4190-02
Client ID: 13147-CA-C-06D
Percent Solids for Spike Sample: 97

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.034	U	0.034	U	1	0		10/25/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: 13147-CA-C-06SD

SDG No.: E4195
Sample ID: E4190-02
Percent Solids for Spike Sample: 97

Analyte	Units	Acceptance Limit	Sample Result	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	2.100	2.110		1	0.5		10/25/2013

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Duplicate Sample Summary

Client: VIASANT, LLC
Project: Catlin NY
Client ID: CS-C-08D

SDG No.: E4195
Sample ID: E4195-03
Percent Solids for Spike Sample: 92.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.18	J	0.18	J	1	0		10/25/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E4195

Project: Catlin NY **Run No.:** LB68340

Analyte		Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB68340BSS								
Cyanide		mg/Kg	10.00	9.37		94	1	80-110	10/25/2013

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Laboratory Control Sample Summary

Client: VIASANT, LLC **SDG No.:** E4195

Project: Catlin NY **Run No.:** LB68343

Analyte	Units	True Value	Result	C	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB68343BSS								
Hexavalent Chromium	mg/Kg	20.00	19.10		96	1	80-120	10/25/2013

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CS-C-08	SDG No.:	E4195
Lab Sample ID:	E4195-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	5.16		1	0.297	0.449	0.899	mg/Kg	10/23/13	10/23/13	SW6010
7440-39-3	Barium	53.3 J		1	0.36	2.25	4.49	mg/Kg	10/23/13	10/23/13	SW6010
7440-41-7	Beryllium	0.186		1	0.054	0.135	0.27	mg/Kg	10/23/13	10/23/13	SW6010
7440-43-9	Cadmium	1.07 J	N	1	0.054	0.135	0.27	mg/Kg	10/23/13	10/23/13	SW6010
7440-47-3	Chromium	7.03 J		1	0.117	0.225	0.449	mg/Kg	10/23/13	10/23/13	SW6010
7440-50-8	Copper	11.1 J		1	0.288	0.449	0.899	mg/Kg	10/23/13	10/23/13	SW6010
7439-92-1	Lead	7.56 J	N	1	0.108	0.27	0.539	mg/Kg	10/23/13	10/23/13	SW6010
7439-96-5	Manganese	369 J		1	0.171	0.449	0.899	mg/Kg	10/23/13	10/23/13	SW6010
7439-97-6	Mercury	0.006	J	1	0.005	0.005	0.01	mg/Kg	10/23/13	10/24/13	SW7471A
7440-02-0	Nickel	14.8 J	N	1	0.414	0.899	1.8	mg/Kg	10/23/13	10/23/13	SW6010
7782-49-2	Selenium	0.449	U	1	0.369	0.449	0.899	mg/Kg	10/23/13	10/23/13	SW6010
7440-22-4	Silver	0.895		1	0.135	0.225	0.449	mg/Kg	10/23/13	10/23/13	SW6010
7440-66-6	Zinc	45.1		1	0.629	0.899	1.8	mg/Kg	10/23/13	10/23/13	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	Metals Group1				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV10	Mercury	3.7924	4	94.8	90 - 110	CV	10/24/2013	10:39	LB68324

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV26	Mercury	4.9181	5	98.4	90 - 110	CV	10/24/2013	10:43	LB68324
CCV27	Mercury	4.9407	5	98.8	90 - 110	CV	10/24/2013	11:09	LB68324
CCV28	Mercury	4.9589	5	99.2	90 - 110	CV	10/24/2013	11:26	LB68324

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	994.17	999	99.5	90 - 110	P	10/23/2013	19:00	LB68317
	Barium	510.29	503	101.4	90 - 110	P	10/23/2013	19:00	LB68317
	Beryllium	475.32	495	96.0	90 - 110	P	10/23/2013	19:00	LB68317
	Cadmium	475.02	496	95.8	90 - 110	P	10/23/2013	19:00	LB68317
	Chromium	481.46	490	98.3	90 - 110	P	10/23/2013	19:00	LB68317
	Copper	508.2	492	103.3	90 - 110	P	10/23/2013	19:00	LB68317
	Lead	971.91	1002	97	90 - 110	P	10/23/2013	19:00	LB68317
	Manganese	492.14	499	98.6	90 - 110	P	10/23/2013	19:00	LB68317
	Nickel	483.82	503	96.2	90 - 110	P	10/23/2013	19:00	LB68317
	Selenium	1008.9	1003	100.6	90 - 110	P	10/23/2013	19:00	LB68317
	Silver	474.56	501	94.7	90 - 110	P	10/23/2013	19:00	LB68317
	Zinc	1027.9	1025	100.3	90 - 110	P	10/23/2013	19:00	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	19.82	20	99.1	70 - 130	P	10/23/2013	19:04	LB68317
	Barium	100.44	100	100.4	70 - 130	P	10/23/2013	19:04	LB68317
	Beryllium	5.79	6	96.5	70 - 130	P	10/23/2013	19:04	LB68317
	Cadmium	5.65	6	94.2	70 - 130	P	10/23/2013	19:04	LB68317
	Chromium	9.07	10	90.7	70 - 130	P	10/23/2013	19:04	LB68317
	Copper	20.76	20	103.8	70 - 130	P	10/23/2013	19:04	LB68317
	Lead	11.12	12	92.7	70 - 130	P	10/23/2013	19:04	LB68317
	Manganese	19.82	20	99.1	70 - 130	P	10/23/2013	19:04	LB68317
	Nickel	36.37	40	90.9	70 - 130	P	10/23/2013	19:04	LB68317
	Selenium	21.46	20	107.3	70 - 130	P	10/23/2013	19:04	LB68317
	Silver	10.12	10	101.2	70 - 130	P	10/23/2013	19:04	LB68317
	Zinc	39.62	40	99.1	70 - 130	P	10/23/2013	19:04	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	4973.2	5000	99.5	90 - 110	P	10/23/2013	19:25	LB68317
	Barium	10003	10000	100.0	90 - 110	P	10/23/2013	19:25	LB68317
	Beryllium	245.59	250	98.2	90 - 110	P	10/23/2013	19:25	LB68317
	Cadmium	2439.3	2500	97.6	90 - 110	P	10/23/2013	19:25	LB68317
	Chromium	985.29	1000	98.5	90 - 110	P	10/23/2013	19:25	LB68317
	Copper	1248.8	1250	99.9	90 - 110	P	10/23/2013	19:25	LB68317
	Lead	4922.9	5000	98.5	90 - 110	P	10/23/2013	19:25	LB68317
	Manganese	2456.9	2500	98.3	90 - 110	P	10/23/2013	19:25	LB68317
	Nickel	2459.1	2500	98.4	90 - 110	P	10/23/2013	19:25	LB68317
	Selenium	5011.2	5000	100.2	90 - 110	P	10/23/2013	19:25	LB68317
	Silver	1232.1	1250	98.6	90 - 110	P	10/23/2013	19:25	LB68317
	Zinc	2468.6	2500	98.7	90 - 110	P	10/23/2013	19:25	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Arsenic	21.87	20	109.4	70 - 130	P	10/23/2013	19:29	LB68317
	Barium	99.63	100	99.6	70 - 130	P	10/23/2013	19:29	LB68317
	Beryllium	5.7	6	95.0	70 - 130	P	10/23/2013	19:29	LB68317
	Cadmium	5.63	6	93.8	70 - 130	P	10/23/2013	19:29	LB68317
	Chromium	9.22	10	92.2	70 - 130	P	10/23/2013	19:29	LB68317
	Copper	21.21	20	106.1	70 - 130	P	10/23/2013	19:29	LB68317
	Lead	11.83	12	98.6	70 - 130	P	10/23/2013	19:29	LB68317
	Manganese	19.59	20	98	70 - 130	P	10/23/2013	19:29	LB68317
	Nickel	36.16	40	90.4	70 - 130	P	10/23/2013	19:29	LB68317
	Selenium	21.27	20	106.4	70 - 130	P	10/23/2013	19:29	LB68317
	Silver	9.64	10	96.4	70 - 130	P	10/23/2013	19:29	LB68317
	Zinc	38.64	40	96.6	70 - 130	P	10/23/2013	19:29	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Arsenic	4924.5	5000	98.5	90 - 110	P	10/23/2013	20:18	LB68317
	Barium	9923.8	10000	99.2	90 - 110	P	10/23/2013	20:18	LB68317
	Beryllium	245.15	250	98.1	90 - 110	P	10/23/2013	20:18	LB68317
	Cadmium	2422.7	2500	96.9	90 - 110	P	10/23/2013	20:18	LB68317
	Chromium	974.87	1000	97.5	90 - 110	P	10/23/2013	20:18	LB68317
	Copper	1243.1	1250	99.4	90 - 110	P	10/23/2013	20:18	LB68317
	Lead	4866.9	5000	97.3	90 - 110	P	10/23/2013	20:18	LB68317
	Manganese	2455.3	2500	98.2	90 - 110	P	10/23/2013	20:18	LB68317
	Nickel	2442.2	2500	97.7	90 - 110	P	10/23/2013	20:18	LB68317
	Selenium	4965.3	5000	99.3	90 - 110	P	10/23/2013	20:18	LB68317
	Silver	1212.4	1250	97	90 - 110	P	10/23/2013	20:18	LB68317
	Zinc	2490.4	2500	99.6	90 - 110	P	10/23/2013	20:18	LB68317
CCV03	Arsenic	4867.9	5000	97.4	90 - 110	P	10/23/2013	21:09	LB68317
	Barium	9724.3	10000	97.2	90 - 110	P	10/23/2013	21:09	LB68317
	Beryllium	243.62	250	97.4	90 - 110	P	10/23/2013	21:09	LB68317
	Cadmium	2397.4	2500	95.9	90 - 110	P	10/23/2013	21:09	LB68317
	Chromium	973.3	1000	97.3	90 - 110	P	10/23/2013	21:09	LB68317
	Copper	1223.1	1250	97.8	90 - 110	P	10/23/2013	21:09	LB68317
	Lead	4819.1	5000	96.4	90 - 110	P	10/23/2013	21:09	LB68317
	Manganese	2442.1	2500	97.7	90 - 110	P	10/23/2013	21:09	LB68317
	Nickel	2428	2500	97.1	90 - 110	P	10/23/2013	21:09	LB68317
	Selenium	4919.6	5000	98.4	90 - 110	P	10/23/2013	21:09	LB68317
	Silver	1205	1250	96.4	90 - 110	P	10/23/2013	21:09	LB68317
	Zinc	2440.4	2500	97.6	90 - 110	P	10/23/2013	21:09	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Arsenic	17.41	20	87.1	70 - 130	P	10/23/2013	21:13	LB68317
	Barium	99.22	100	99.2	70 - 130	P	10/23/2013	21:13	LB68317
	Beryllium	5.75	6	95.8	70 - 130	P	10/23/2013	21:13	LB68317
	Cadmium	5.76	6	96.0	70 - 130	P	10/23/2013	21:13	LB68317
	Chromium	9.11	10	91.1	70 - 130	P	10/23/2013	21:13	LB68317
	Copper	20.64	20	103.2	70 - 130	P	10/23/2013	21:13	LB68317
	Lead	12.43	12	103.6	70 - 130	P	10/23/2013	21:13	LB68317
	Manganese	19.73	20	98.7	70 - 130	P	10/23/2013	21:13	LB68317
	Nickel	36.12	40	90.3	70 - 130	P	10/23/2013	21:13	LB68317
	Selenium	21.19	20	106	70 - 130	P	10/23/2013	21:13	LB68317
	Silver	9.89	10	98.9	70 - 130	P	10/23/2013	21:13	LB68317
	Zinc	40.28	40	100.7	70 - 130	P	10/23/2013	21:13	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4877.9	5000	97.6	90 - 110	P	10/23/2013	21:55	LB68317
	Barium	9698.9	10000	97	90 - 110	P	10/23/2013	21:55	LB68317
	Beryllium	246.13	250	98.5	90 - 110	P	10/23/2013	21:55	LB68317
	Cadmium	2412.8	2500	96.5	90 - 110	P	10/23/2013	21:55	LB68317
	Chromium	986.02	1000	98.6	90 - 110	P	10/23/2013	21:55	LB68317
	Copper	1234.5	1250	98.8	90 - 110	P	10/23/2013	21:55	LB68317
	Lead	4856.8	5000	97.1	90 - 110	P	10/23/2013	21:55	LB68317
	Manganese	2464	2500	98.6	90 - 110	P	10/23/2013	21:55	LB68317
	Nickel	2448.4	2500	97.9	90 - 110	P	10/23/2013	21:55	LB68317
	Selenium	4917.3	5000	98.3	90 - 110	P	10/23/2013	21:55	LB68317
	Silver	1214.7	1250	97.2	90 - 110	P	10/23/2013	21:55	LB68317
	Zinc	2510.8	2500	100.4	90 - 110	P	10/23/2013	21:55	LB68317

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Arsenic	20.17	20	100.9	70 - 130	P	10/23/2013	21:59	LB68317
	Barium	101.84	100	101.8	70 - 130	P	10/23/2013	21:59	LB68317
	Beryllium	5.84	6	97.3	70 - 130	P	10/23/2013	21:59	LB68317
	Cadmium	6.43	6	107.2	70 - 130	P	10/23/2013	21:59	LB68317
	Chromium	10.13	10	101.3	70 - 130	P	10/23/2013	21:59	LB68317
	Copper	21.06	20	105.3	70 - 130	P	10/23/2013	21:59	LB68317
	Lead	13.55	12	112.9	70 - 130	P	10/23/2013	21:59	LB68317
	Manganese	20.48	20	102.4	70 - 130	P	10/23/2013	21:59	LB68317
	Nickel	37.3	40	93.3	70 - 130	P	10/23/2013	21:59	LB68317
	Selenium	24.77	20	123.9	70 - 130	P	10/23/2013	21:59	LB68317
	Silver	10.09	10	100.9	70 - 130	P	10/23/2013	21:59	LB68317
	Zinc	41.74	40	104.4	70 - 130	P	10/23/2013	21:59	LB68317

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	19.46	20	97.3	40 - 160	P	10/23/2013	19:12	LB68317
	Barium	100.35	100	100.4	40 - 160	P	10/23/2013	19:12	LB68317
	Beryllium	5.75	6	95.8	40 - 160	P	10/23/2013	19:12	LB68317
	Cadmium	5.72	6	95.3	40 - 160	P	10/23/2013	19:12	LB68317
	Chromium	8.67	10	86.7	40 - 160	P	10/23/2013	19:12	LB68317
	Copper	21.39	20	107	40 - 160	P	10/23/2013	19:12	LB68317
	Lead	11.6	12	96.7	40 - 160	P	10/23/2013	19:12	LB68317
	Manganese	19.65	20	98.3	40 - 160	P	10/23/2013	19:12	LB68317
	Nickel	36.22	40	90.6	40 - 160	P	10/23/2013	19:12	LB68317
	Selenium	20.43	20	102.2	40 - 160	P	10/23/2013	19:12	LB68317
	Silver	10	10	100	40 - 160	P	10/23/2013	19:12	LB68317
	Zinc	39.44	40	98.6	40 - 160	P	10/23/2013	19:12	LB68317
CRA	Mercury	0.1899	0.2	95	40 - 160	CV	10/24/2013	10:48	LB68324

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB10	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	10/24/2013	10:41	LB68324

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB26	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	10/24/2013	10:45	LB68324
CCB27	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	10/24/2013	11:11	LB68324
CCB28	Mercury	0.1	+/-0.2	U	0.1	0.2	CV	10/24/2013	11:28	LB68324

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:08	LB68317
	Barium	50.0	+/-100	U	50.0	100	P	10/23/2013	19:08	LB68317
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	19:08	LB68317
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	19:08	LB68317
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	19:08	LB68317
	Copper	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:08	LB68317
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/23/2013	19:08	LB68317
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:08	LB68317
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	19:08	LB68317
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:08	LB68317
	Silver	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	19:08	LB68317
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	19:08	LB68317

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:33	LB68317
	Barium	50.0	+/-100	U	50.0	100	P	10/23/2013	19:33	LB68317
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	19:33	LB68317
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	19:33	LB68317
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	19:33	LB68317
	Copper	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:33	LB68317
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/23/2013	19:33	LB68317
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:33	LB68317
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	19:33	LB68317
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	19:33	LB68317
	Silver	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	19:33	LB68317
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	19:33	LB68317
CCB02	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	20:22	LB68317
	Barium	50.0	+/-100	U	50.0	100	P	10/23/2013	20:22	LB68317
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	20:22	LB68317
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	20:22	LB68317
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	20:22	LB68317
	Copper	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	20:22	LB68317
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/23/2013	20:22	LB68317
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	20:22	LB68317
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	20:22	LB68317
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	20:22	LB68317
	Silver	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	20:22	LB68317
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	20:22	LB68317
CCB03	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	21:17	LB68317
	Barium	50.0	+/-100	U	50.0	100	P	10/23/2013	21:17	LB68317
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	21:17	LB68317
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	21:17	LB68317
	Chromium	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	21:17	LB68317
	Copper	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	21:17	LB68317
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/23/2013	21:17	LB68317
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	21:17	LB68317
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	21:17	LB68317
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	21:17	LB68317
	Silver	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	21:17	LB68317
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	21:17	LB68317
CCB04	Arsenic	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	22:03	LB68317
	Barium	50.0	+/-100	U	50.0	100	P	10/23/2013	22:03	LB68317
	Beryllium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	22:03	LB68317
	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/23/2013	22:03	LB68317

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Chromium	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	22:03	LB68317
	Copper	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	22:03	LB68317
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/23/2013	22:03	LB68317
	Manganese	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	22:03	LB68317
	Nickel	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	22:03	LB68317
	Selenium	10.0	+/-20.0	U	10.0	20.0	P	10/23/2013	22:03	LB68317
	Silver	5.0	+/-10.0	U	5.0	10.0	P	10/23/2013	22:03	LB68317
	Zinc	20.0	+/-40.0	U	20.0	40.0	P	10/23/2013	22:03	LB68317

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB73021BL		**SOLID**		**Batch Number:**		**PB73021**		**Prep Date:**	**10/23/2013**	
	Mercury	0.005	<0.01	U	0.005	0.01	CV	10/24/2013	10:54	LB68324

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB73012BL		**SOLID**		**Batch Number:**		**PB73012**		**Prep Date:**	**10/23/2013**	
	Arsenic	0.5	<1.0	U	0.5	1.0	P	10/23/2013	19:37	LB68317
	Barium	2.5	<5.0	U	2.5	5.0	P	10/23/2013	19:37	LB68317
	Beryllium	0.15	<0.3	U	0.15	0.3	P	10/23/2013	19:37	LB68317
	Cadmium	0.15	<0.3	U	0.15	0.3	P	10/23/2013	19:37	LB68317
	Chromium	0.25	<0.5	U	0.25	0.5	P	10/23/2013	19:37	LB68317
	Copper	0.5	<1.0	U	0.5	1.0	P	10/23/2013	19:37	LB68317
	Lead	0.3	<0.6	U	0.3	0.6	P	10/23/2013	19:37	LB68317
	Manganese	0.5	<1.0	U	0.5	1.0	P	10/23/2013	19:37	LB68317
	Nickel	1.0	<2.0	U	1.0	2.0	P	10/23/2013	19:37	LB68317
	Selenium	0.5	<1.0	U	0.5	1.0	P	10/23/2013	19:37	LB68317
	Silver	0.25	<0.5	U	0.25	0.5	P	10/23/2013	19:37	LB68317
	Zinc	1.0	<2.0	U	1.0	2.0	P	10/23/2013	19:37	LB68317

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	-2.21				10/23/2013	19:16	LB68317
	Barium	2.2	2	110	-9900 - 10100%	10/23/2013	19:16	LB68317
	Beryllium	0.56				10/23/2013	19:16	LB68317
	Cadmium	5.05				10/23/2013	19:16	LB68317
	Chromium	40.81	43	94.9	77 - 123%	10/23/2013	19:16	LB68317
	Copper	26.48	23	115.1	-9 - 209%	10/23/2013	19:16	LB68317
	Lead	9.2	10	92.0	0 - 200%	10/23/2013	19:16	LB68317
	Manganese	18.64	19	98.1	21 - 179%	10/23/2013	19:16	LB68317
	Nickel	20.52	21	97.7	-90 - 290%	10/23/2013	19:16	LB68317
	Selenium	-8.2				10/23/2013	19:16	LB68317
	Silver	3.95				10/23/2013	19:16	LB68317
	Zinc	24.22	28	86.5	-114 - 314%	10/23/2013	19:16	LB68317
ICSAB01	Arsenic	101.11	101	100.1	80 - 120%	10/23/2013	19:21	LB68317
	Barium	517.87	517	100.2	60 - 140%	10/23/2013	19:21	LB68317
	Beryllium	524.85	504	104.1	80 - 120%	10/23/2013	19:21	LB68317
	Cadmium	1015.6	989	102.7	80 - 120%	10/23/2013	19:21	LB68317
	Chromium	531.71	519	102.4	80 - 120%	10/23/2013	19:21	LB68317
	Copper	511.42	550	93	80 - 120%	10/23/2013	19:21	LB68317
	Lead	62.92	58	108.5	80 - 120%	10/23/2013	19:21	LB68317
	Manganese	509.26	507	100.4	80 - 120%	10/23/2013	19:21	LB68317
	Nickel	1025.1	983	104.3	80 - 120%	10/23/2013	19:21	LB68317
	Selenium	46.85	51	91.9	34 - 166%	10/23/2013	19:21	LB68317
	Silver	207.11	205	101.0	80 - 120%	10/23/2013	19:21	LB68317
	Zinc	1034.4	986	104.9	80 - 120%	10/23/2013	19:21	LB68317

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4195

contract: VIAS01 **lab code:** CHEM **case no.:** E4195 **sas no.:** E4195

matrix: Solid **sample id:** E4169-03 **client id:** S-91-2(0-5)MS

Percent Solids for Sample: 92 **Spiked ID:** E4169-03MS **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	49.2		2.49		42.6	110		P
Barium	mg/Kg	39 - 158	110		84.2		10.7	241		P
Beryllium	mg/Kg	79 - 112	12.5		0.23	J	10.7	115	N	P
Cadmium	mg/Kg	73 - 114	14.7		1.19		10.7	126	N	P
Chromium	mg/Kg	68 - 122	40.8		16.4		21.3	115		P
Copper	mg/Kg	59 - 132	41.9		21.9		16	125		P
Lead	mg/Kg	66 - 125	103		33.9		53.3	130	N	P
Manganese	mg/Kg	10 - 205	260		160		10.7	935		P
Nickel	mg/Kg	64 - 129	53.4		16.2		26.6	140	N	P
Selenium	mg/Kg	69 - 105	114		0.371	U	110	103.6		P
Silver	mg/Kg	54 - 131	4.95		0.555		4	110		P
Zinc	mg/Kg	67 - 127	79.7		59.4		10.7	190		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4195

contract: VIAS01 **lab code:** CHEM **case no.:** E4195 **sas no.:** E4195

matrix: Solid **sample id:** E4169-03 **client id:** S-91-2(0-5)MSD

Percent Solids for Sample: 92 **Spiked ID:** E4169-03MSD **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	73 - 117	48.3		2.49		42	109		P
Barium	mg/Kg	39 - 158	109		84.2		10.5	236		P
Beryllium	mg/Kg	79 - 112	12.3		0.23	J	10.5	115	N	P
Cadmium	mg/Kg	73 - 114	14.4		1.19		10.5	126	N	P
Chromium	mg/Kg	68 - 122	40.3		16.4		21	114		P
Copper	mg/Kg	59 - 132	41.2		21.9		15.8	122		P
Lead	mg/Kg	66 - 125	102		33.9		52.5	130	N	P
Manganese	mg/Kg	10 - 205	256		160		10.5	914		P
Nickel	mg/Kg	64 - 129	52.8		16.2		26.3	139	N	P
Selenium	mg/Kg	69 - 105	113		0.371	U	110	102.7		P
Silver	mg/Kg	54 - 131	4.88		0.555		3.9	111		P
Zinc	mg/Kg	67 - 127	79.4		59.4		10.5	190		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4195

contract: VIAS01 **lab code:** CHEM **case no.:** E4195 **sas no.:** E4195

matrix: Solid **sample id:** E4192-01 **client id:** CAC-CONCRETESANDMS

Percent Solids for Sample: 98.4 **Spiked ID:** E4192-01MS **Percent Solids for Spike Sample:** 98.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.201		0.005	U	0.2	100.5		CV

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4195

contract: VIAS01 **lab code:** CHEM **case no.:** E4195 **sas no.:** E4195

matrix: Solid **sample id:** E4192-01 **client id:** CAC-CONCRETESANDMSD

Percent Solids for Sample: 98.4 **Spiked ID:** E4192-01MSD **Percent Solids for Spike Sample:** 98.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.201		0.005	U	0.2	100.5		CV

CHEMTECH

Metals
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POST DIGEST SPIKE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Matrix: Solid **Level:** LOW **Client ID:** S-91-2(0-5)A

Sample ID: E4169-03 **Spiked ID:** E4169-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/Kg	79 - 112	8.26		0.23	J	9.1	88		P
Cadmium	mg/Kg	73 - 114	10.68		1.19		9.1	104		P
Lead	mg/Kg	66 - 125	81.6		33.9		45.3	105		P
Nickel	mg/Kg	64 - 129	40.4		16.2		22.6	107		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Matrix: Solid **Sample ID:** E4169-03 **Client ID:** S-91-2(0-5)DUP

Percent Solids for Sample: 92 **Duplicate ID** E4169-03DUP **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	2.49		2.51		1		P
Barium	mg/Kg	20	84.2		83.8		0		P
Beryllium	mg/Kg	20	0.23	J	0.237	J	3		P
Cadmium	mg/Kg	20	1.19		1.21		2		P
Chromium	mg/Kg	20	16.4		16.8		2		P
Copper	mg/Kg	20	21.9		22.1		1		P
Lead	mg/Kg	20	33.9		34.4		1		P
Manganese	mg/Kg	20	160		161		1		P
Nickel	mg/Kg	20	16.2		16.3		1		P
Selenium	mg/Kg	20	0.371	U	0.374	U			P
Silver	mg/Kg	20	0.555		0.575		4		P
Zinc	mg/Kg	20	59.4		59.6		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Matrix: Solid **Sample ID:** E4169-03MS **Client ID:** S-91-2(0-5)MSD

Percent Solids for Sample: 92 **Duplicate ID** E4169-03MSD **Percent Solids for Spike Sample:** 92

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	49.2		48.3		2		P
Barium	mg/Kg	20	110		109		1		P
Beryllium	mg/Kg	20	12.5		12.3		2		P
Cadmium	mg/Kg	20	14.7		14.4		2		P
Chromium	mg/Kg	20	40.8		40.3		1		P
Copper	mg/Kg	20	41.9		41.2		2		P
Lead	mg/Kg	20	103		102		1		P
Manganese	mg/Kg	20	260		256		2		P
Nickel	mg/Kg	20	53.4		52.8		1		P
Selenium	mg/Kg	20	114		113		1		P
Silver	mg/Kg	20	4.95		4.88		1		P
Zinc	mg/Kg	20	79.7		79.4		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Matrix: Solid **Sample ID:** E4192-01 **Client ID:** CAC-CONCRETESANDDUP

Percent Solids for Sample: 98.4 **Duplicate ID** E4192-01DUP **Percent Solids for Spike Sample:** 98.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.005	U	0.005	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Matrix: Solid **Sample ID:** E4192-01MS **Client ID:** CAC-CONCRETESANDMSD

Percent Solids for Sample: 98.4 **Duplicate ID** E4192-01MSD **Percent Solids for Spike Sample:** 98.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.201		0.201		0		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB73012BS							
Arsenic	mg/Kg	40	38.2		95.5	82 - 112	P
Barium	mg/Kg	10	10.04		100.4	83 - 118	P
Beryllium	mg/Kg	10	9.52		95.2	84 - 113	P
Cadmium	mg/Kg	10	9.22		92.2	82 - 117	P
Chromium	mg/Kg	20	19.3		96.5	84 - 115	P
Copper	mg/Kg	15	15.2		101.3	80 - 115	P
Lead	mg/Kg	50	47		94.0	82 - 117	P
Manganese	mg/Kg	10	9.86		98.6	84 - 114	P
Nickel	mg/Kg	25	23.6		94.4	85 - 118	P
Selenium	mg/Kg	100	98.6		98.6	74 - 110	P
Silver	mg/Kg	3.8	3.38		88.9	81 - 123	P
Zinc	mg/Kg	10	10.09		100.9	88 - 127	P

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4195

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4195 **SAS No.:** E4195

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB73021BS							
Mercury	mg/Kg	0.2	0.188		94.0	73 - 121	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

S-91-2(0-5)L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68317 **Lab Sample ID :** E4169-03L **SDG No.:** E4195

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	2.49		3.27	J	31		P
Barium	84.2		96.8		15		P
Beryllium	0.23	J	0.272	U	100.0		P
Cadmium	1.19		0.849	J	29		P
Chromium	16.4		20.1		23		P
Copper	21.9		28.9		32		P
Lead	33.9		36.5		8		P
Manganese	160		196		23		P
Nickel	16.2		16.3		1		P
Selenium	0.371	U	1.86	U			P
Silver	0.555		0.679	U	100.0		P
Zinc	59.4		64.2		8		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CAC-CONCRETESANDL

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68324 **Lab Sample ID :** E4192-01L **SDG No.:** E4195

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.005	U	0.025	U			CV

DATA USABILITY SUMMARY REPORTS

CBS TOWNLEY HILL SITE

SAMPLED 9/5/13 thru 10/22/13
SDG E3585, E3989, E4117, E4194

TCLP CADMIUM and LEAD

Prepared for:

VIASANT, LLC.
606 E. Baltimore Pike, Floor 3
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE

SDG: E3585
Sampled September 2013

TCLP CADMIUM and LEAD

CFSA-17C-30 (E3585-01)	CFSA-17D-31 (E3585-02)
CFSA-18C-32 (E3585-03)	CFSA-18D-33 (E3585-04)
CFSA-19C-34 (E3585-05)	CFSA-20C-35 (E3585-06)
CFSA-20D-36 (E3585-07)	CFSA-21C-37 (E3585-08)
CFSA-22C-38 (E3585-09)	CFSA-22D-39 (E3585-10)

DATA ASSESSMENT

An inorganics data package containing analytical results for ten soil samples was received from VIASANT,LLC on 16Nov13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) was used as a technical reference.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 12DEC13

James B. Baldwin

SAMPLE HISTORY

Sample holding times are calculated between the Verified Time of Sample Receipt (VTSR) and the time of analysis. Soil samples must be begin TCLP extractions within XX days of collection. Digested extracts must be analyzed within 180 days.

This sample delivery group contained ten soil samples that were collected from the Townley Hill Road site on 05Sep13. The entire group of samples was shipped to the laboratory, via FedEx, on the day of collection, arriving the next day. The samples were received intact and properly chilled. A cooler temperature of 6°C was recorded by the laboratory at the time of receipt. The samples underwent TCLP extractions between 06Sep13 and 07Sep13. This work was performed correctly. The TCLP extracts were digested and analyzed on 09Sep13. The SW-846 and ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

CONTRACT REQUIED DETECTION LIMIT STANARDS (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

A CRI standard was analyzed at the beginning of the analysis sequence and periodically throughout the run. These checks produced acceptable recoveries of cadmium and lead.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory

technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of the analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

CFSA-22D-39 was selected for matrix spiking. Two portions of this sample were spiked with cadmium and lead. The recoveries reported for these additions demonstrated acceptable levels of measurement precision and accuracy.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

CFSA-22D-39 was analyzed as a laboratory split duplicate. The recoveries from the matrix spiked samples created from CFSA-22D-39 were also evaluated. Both pairs of cadmium and lead samples demonstrated an acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An aqueous spiked blank (LCS) was digested and analyzed with this group of samples. This LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times MDL are not considered.

CFSA-22D-39 was prepared as a serial dilution. The recoveries reported from this sample satisfied the ASP acceptance criteria.

DATA QUALIFICATIONS

CBS Townley Hill Site Sampled September 2013

CFSA-17C-30 (E3585-01)
CFSA-17D-31 (E3585-02)
CFSA-18C-32 (E3585-03)
CFSA-18D-33 (E3585-04)
CFSA-19C-34 (E3585-05)
CFSA-20C-35 (E3585-06)
CFSA-20D-36 (E3585-07)
CFSA-21C-37 (E3585-08)
CFSA-22C-38 (E3585-09)
CFSA-22D-39 (E3585-10)

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-17C-30	SDG No.:	E3585
Lab Sample ID:	E3585-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	380		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-17D-31	SDG No.:	E3585
Lab Sample ID:	E3585-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	450		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-18C-32	SDG No.:	E3585
Lab Sample ID:	E3585-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	530		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-18D-33	SDG No.:	E3585
Lab Sample ID:	E3585-04	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	340		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-19C-34	SDG No.:	E3585
Lab Sample ID:	E3585-05	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	2900		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-20C-35	SDG No.:	E3585
Lab Sample ID:	E3585-06	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	360		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-20D-36	SDG No.:	E3585
Lab Sample ID:	E3585-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	530		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-21C-37	SDG No.:	E3585
Lab Sample ID:	E3585-08	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	390		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-22C-38	SDG No.:	E3585
Lab Sample ID:	E3585-09	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	500		1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

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Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	09/05/13
Project:	Catlin NY	Date Received:	09/06/13
Client Sample ID:	CFSA-22D-39	SDG No.:	E3585
Lab Sample ID:	E3585-10	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	U	1	10	30.0	60	ug/L	09/09/13	09/09/13	SW6010
7439-92-1	Lead	60	U	1	52	60.0	120	ug/L	09/09/13	09/09/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	496.77	496	100.2	95 - 105	P	09/09/2013	13:25	LB67623
	Lead	1004.8	1002	100.3	95 - 105	P	09/09/2013	13:25	LB67623

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Cadmium	5.65	6	94.2	70 - 130	P	09/09/2013	13:29	LB67623
	Lead	10.57	12	88.1	70 - 130	P	09/09/2013	13:29	LB67623

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Cadmium	2443.4	2500	97.7	90 - 110	P	09/09/2013	13:50	LB67623
	Lead	4889.2	5000	97.8	90 - 110	P	09/09/2013	13:50	LB67623

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Cadmium	5.65	6	94.2	70 - 130	P	09/09/2013	13:54	LB67623
	Lead	10.34	12	86.2	70 - 130	P	09/09/2013	13:54	LB67623

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Cadmium	2422.5	2500	96.9	90 - 110	P	09/09/2013	14:39	LB67623
	Lead	4834	5000	96.7	90 - 110	P	09/09/2013	14:39	LB67623
CCV03	Cadmium	2468.3	2500	98.7	90 - 110	P	09/09/2013	15:29	LB67623
	Lead	4924.7	5000	98.5	90 - 110	P	09/09/2013	15:29	LB67623
CCV04	Cadmium	2411.2	2500	96.4	90 - 110	P	09/09/2013	16:14	LB67623
	Lead	4820.9	5000	96.4	90 - 110	P	09/09/2013	16:14	LB67623
CCV05	Cadmium	2430	2500	97.2	90 - 110	P	09/09/2013	16:31	LB67623
	Lead	4847.1	5000	96.9	90 - 110	P	09/09/2013	16:31	LB67623

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Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.76	6	96.0	40 - 160	P	09/09/2013	13:38	LB67623
	Lead	11.35	12	94.6	40 - 160	P	09/09/2013	13:38	LB67623

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Metals

- 3a -
INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	13:33	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	13:33	LB67623

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	13:58	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	13:58	LB67623
CCB02	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	14:43	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	14:43	LB67623
CCB03	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	15:33	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	15:33	LB67623
CCB04	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	16:18	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	16:18	LB67623
CCB05	Cadmium	0.8	+/-6.0	U	0.8	3.0	6.0	P	09/09/2013	16:35	LB67623
	Lead	3.6	+/-12.0	U	3.6	6.0	12.0	P	09/09/2013	16:35	LB67623

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3585

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB72139BL		**WATER**		**Batch Number:**		**PB72139**		**Prep Date:**	**09/09/2013**	
	Cadmium	10.0	<60.0	U	10.0	60.0	P	09/09/2013	14:47	LB67623
	Lead	52.0	<120	U	52.0	120	P	09/09/2013	14:47	LB67623

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Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	1.57				09/09/2013	13:42	LB67623
	Lead	9.43	10	94.3	80 - 120%	09/09/2013	13:42	LB67623
ICSAB01	Cadmium	1004.1	989	101.5	80 - 120%	09/09/2013	13:46	LB67623
	Lead	59.71	58	102.9	80 - 120%	09/09/2013	13:46	LB67623

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3585

contract: VIAS01 **lab code:** CHEM **case no.:** E3585 **sas no.:** E3585

matrix: WATER **sample id:** E3585-10 **client id:** CFSA-22D-39MS

Percent Solids for Sample: NA **Spiked ID:** E3585-11 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	2200		10.0	U	2000	110		P
Lead	ug/L	74 - 119	11000		52.0	U	10000	110		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3585

contract: VIAS01 **lab code:** CHEM **case no.:** E3585 **sas no.:** E3585

matrix: WATER **sample id:** E3585-10 **client id:** CFSA-22D-39MSD

Percent Solids for Sample: NA **Spiked ID:** E3585-12 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	2200		10.0	U	2000	110		P
Lead	ug/L	74 - 119	10800		52.0	U	10000	108		P

CHEMTECH

Metals
- 5b -

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Matrix: WATER **Sample ID:** E3585-10 **Client ID:** CFSA-22D-39DUP

Percent Solids for Sample: NA **Duplicate ID** E3585-10DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	10.0	U	10.0	U			P
Lead	ug/L	20	52.0	U	52.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Matrix: WATER **Sample ID:** E3585-11 **Client ID:** CFSA-22D-39MSD

Percent Solids for Sample: NA **Duplicate ID** E3585-12 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	2200		2200		0		P
Lead	ug/L	20	11000		10800		2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3585

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3585 **SAS No.:** E3585

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB72139BS							
Cadmium	ug/L	2000	1900		95.0	82 - 119	P
Lead	ug/L	10000	9300		93.0	83 - 119	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CFSA-22D-39L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb67623 **Lab Sample ID :** E3585-10L **SDG No.:** E3585

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	10.0	U	50.0	U			P
Lead	52.0	U	260	U			P

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE

SDG: E3989
Sampled October 2013

TCLP CADMIUM and LEAD

CFS-LGPND-40 (E3989-01)	CFS-LGPND-41 (E3989-02)
CFS-LGPND-42 (E3989-03)	CFS-LGPND-43 (E3989-04)
CFS-LGPND-44 (E3989-05)	CFS-LGPND-45 (E3989-06)
CFS-LGPND-46 (E3989-07)	CFS-LGPND-47 (E3989-08)
CFS-LGPND-48 (E3989-09)	CFS-LGPND-49 (E3989-10)
CFS-LGPND-50 (E3989-11)	CFS-LGPND-51 (E3989-12)
CFS-LGPND-52 (E3989-13)	

DATA ASSESSMENT

An inorganics data package containing analytical results for thirteen soil samples was received from VIASANT,LLC on 16Nov13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) was used as a technical reference.

The cadmium and lead results from this group of samples have been qualified as estimations due to poor spiked sample recoveries.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible, and completely usable in its present form. Results representing a usable estimation of the conditions at the time of sampling have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 11DEC13

James B. Baldwin

SAMPLE HISTORY

Sample holding times are calculated between the Verified Time of Sample Receipt (VTSR) and the time of analysis. Soil samples must be begin TCLP extractions within XX days of collection. Digested extracts must be analyzed within 180 days.

This sample delivery group contained thirteen soil samples that were collected from the Townley Hill Road site on 03Oct13. The entire group of samples was shipped to the laboratory, via FedEx, on the day of collection, arriving the next day. The samples were received intact and properly chilled. A cooler temperature of 6°C was recorded by the laboratory at the time of receipt. The samples underwent TCLP extractions between 04Oct13 and 05Oct13. This work was performed correctly. The TCLP extracts were digested and analyzed on 07Oct13. The SW-846 and ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

CONTRACT REQUIED DETECTION LIMIT STANARDS (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

A CRI standard was analyzed at the beginning of each analysis sequence and periodically throughout the run. These checks produced acceptable recoveries of cadmium and lead.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory

technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

An Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of the analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

CFS-LGPND-40 was selected for matrix spiking. Two portions of this sample were spiked with cadmium and lead. The recoveries reported for these additions included low results for both cadmium (44%,44%) and lead (43%,43%). The cadmium and lead results from this project have been qualified as estimations based on these indications of negative bias.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

CFS-LGPND-40 was analyzed as a laboratory split duplicate. The recoveries from the matrix spiked samples created from CFS-LGPND-40 were also evaluated. Both pairs of cadmium and lead samples demonstrated an acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An aqueous spiked blank (LCS) was digested and analyzed with this group of samples. This LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times MDL are not considered.

CFS-LGPND-40 was prepared as a serial dilution. The recoveries reported from this sample satisfied the ASP acceptance criteria.

DATA QUALIFICATIONS

CBS Townley Hill Site Sampled October 2013

	SPIKES CADMIUM	SPIKES LEAD
CFS-LGPND-40 (E3989-01)	30UJ	66.7J
CFS-LGPND-41 (E3989-02)	30UJ	27.7J
CFS-LGPND-42 (E3989-03)	30UJ	27.1J
CFS-LGPND-43 (E3989-04)	30UJ	47.9J
CFS-LGPND-44 (E3989-05)	30UJ	60UJ
CFS-LGPND-45 (E3989-06)	30UJ	60UJ
CFS-LGPND-46 (E3989-07)	30UJ	60UJ
CFS-LGPND-47 (E3989-08)	30UJ	60UJ
CFS-LGPND-48 (E3989-09)	30UJ	60UJ
CFS-LGPND-49 (E3989-10)	30UJ	60UJ
CFS-LGPND-50 (E3989-11)	30UJ	60UJ
CFS-LGPND-51 (E3989-12)	30UJ	41.8J
CFS-LGPND-52 (E3989-13)	30UJ	60UJ

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-40	SDG No.:	E3989
Lab Sample ID:	E3989-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	66.7	J N	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-41	SDG No.:	E3989
Lab Sample ID:	E3989-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	27.7	JN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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J = Estimated Value
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-42	SDG No.:	E3989
Lab Sample ID:	E3989-03	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	27.1	JN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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LOD = Limit of Detection
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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-43	SDG No.:	E3989
Lab Sample ID:	E3989-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	47.9	JN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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LOD = Limit of Detection
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-44	SDG No.:	E3989
Lab Sample ID:	E3989-05	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-45	SDG No.:	E3989
Lab Sample ID:	E3989-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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LOD = Limit of Detection
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-46	SDG No.:	E3989
Lab Sample ID:	E3989-07	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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LOD = Limit of Detection
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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-47	SDG No.:	E3989
Lab Sample ID:	E3989-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-48	SDG No.:	E3989
Lab Sample ID:	E3989-09	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-49	SDG No.:	E3989
Lab Sample ID:	E3989-10	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-50	SDG No.:	E3989
Lab Sample ID:	E3989-11	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-51	SDG No.:	E3989
Lab Sample ID:	E3989-12	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	41.8	JN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/03/13
Project:	Catlin NY	Date Received:	10/04/13
Client Sample ID:	CFS-LGPND-52	SDG No.:	E3989
Lab Sample ID:	E3989-13	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30 U	UN	1	5	15.0	30	ug/L	10/07/13	10/07/13	SW6010
7439-92-1	Lead	60 U	UN	1	26	30.0	60	ug/L	10/07/13	10/07/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	479.36	496	96.6	90 - 110	P	10/07/2013	11:30	LB68063
	Lead	982.05	1002	98.0	90 - 110	P	10/07/2013	11:30	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Cadmium	5.74	6	95.7	70 - 130	P	10/07/2013	11:34	LB68063
	Lead	11.39	12	94.9	70 - 130	P	10/07/2013	11:34	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Cadmium	2460.7	2500	98.4	90 - 110	P	10/07/2013	11:56	LB68063
	Lead	4966.3	5000	99.3	90 - 110	P	10/07/2013	11:56	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Cadmium	5.64	6	94.0	70 - 130	P	10/07/2013	12:00	LB68063
	Lead	11.51	12	95.9	70 - 130	P	10/07/2013	12:00	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Cadmium	2388	2500	95.5	90 - 110	P	10/07/2013	14:39	LB68063
	Lead	4850.5	5000	97.0	90 - 110	P	10/07/2013	14:39	LB68063
CCV03	Cadmium	2406.2	2500	96.2	90 - 110	P	10/07/2013	15:30	LB68063
	Lead	4862	5000	97.2	90 - 110	P	10/07/2013	15:30	LB68063
CCV04	Cadmium	2439.3	2500	97.6	90 - 110	P	10/07/2013	16:20	LB68063
	Lead	4898.5	5000	98	90 - 110	P	10/07/2013	16:20	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Cadmium	5.65	6	94.2	70 - 130	P	10/07/2013	16:24	LB68063
	Lead	12.01	12	100.1	70 - 130	P	10/07/2013	16:24	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Cadmium	2413.7	2500	96.5	90 - 110	P	10/07/2013	17:08	LB68063
	Lead	4831.8	5000	96.6	90 - 110	P	10/07/2013	17:08	LB68063

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Cadmium	5.69	6	94.8	70 - 130	P	10/07/2013	17:12	LB68063
	Lead	12.55	12	104.6	70 - 130	P	10/07/2013	17:12	LB68063

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.7	6	95.0	40 - 160	P	10/07/2013	11:43	LB68063
	Lead	13.19	12	109.9	40 - 160	P	10/07/2013	11:43	LB68063

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	11:38	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	11:38	LB68063

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	12:04	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	12:04	LB68063
CCB02	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	14:43	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	14:43	LB68063
CCB03	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	15:34	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	15:34	LB68063
CCB04	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	16:28	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	16:28	LB68063
CCB05	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/07/2013	17:17	LB68063
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/07/2013	17:17	LB68063

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB72716BL		**WATER**		**Batch Number:**		**PB72716**		**Prep Date:**	**10/07/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/07/2013	13:57	LB68063
	Lead	30.0	<60.0	U	30.0	60.0	P	10/07/2013	13:57	LB68063

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB72716TB		**WATER**		**Batch Number:**		**PB72716**		**Prep Date:**	**10/07/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/07/2013	14:05	LB68063
	Lead	30.0	<60.0	U	30.0	60.0	P	10/07/2013	14:05	LB68063

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	3.11				10/07/2013	11:47	LB68063
	Lead	8.18	10	81.8	0 - 200%	10/07/2013	11:47	LB68063
ICSAB01	Cadmium	1020.4	989	103.2	80 - 120%	10/07/2013	11:51	LB68063
	Lead	59.19	58	102.1	80 - 120%	10/07/2013	11:51	LB68063

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3989

contract: VIAS01 **lab code:** CHEM **case no.:** E3989 **sas no.:** E3989

matrix: WATER **sample id:** E3989-01 **client id:** CFS-LGPND-40MS

Percent Solids for Sample: NA **Spiked ID:** E3989-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	439		5.0	U	1000	43.9	N	P
Lead	ug/L	74 - 119	2200		66.7		5000	43	N	P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3989

contract: VIAS01 **lab code:** CHEM **case no.:** E3989 **sas no.:** E3989

matrix: WATER **sample id:** E3989-01 **client id:** CFS-LGPND-40MSD

Percent Solids for Sample: NA **Spiked ID:** E3989-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	441		5.0	U	1000	44.1	N	P
Lead	ug/L	74 - 119	2200		66.7		5000	43	N	P

CHEMTECH

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Matrix: WATER **Level:** LOW **Client ID:** CFS-LGPND-40A

Sample ID: E3989-01 **Spiked ID:** E3989-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	957		5.0	U	1000	95.7		P
Lead	ug/L	74 - 119	4800		66.7		5000	95		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Matrix: WATER **Sample ID:** E3989-01 **Client ID:** CFS-LGPND-40DUP

Percent Solids for Sample: NA **Duplicate ID** E3989-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0	U	5.0	U			P
Lead	ug/L	20	66.7		67.4		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Matrix: WATER **Sample ID:** E3989-01MS **Client ID:** CFS-LGPND-40MSD

Percent Solids for Sample: NA **Duplicate ID** E3989-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	439		441		0		P
Lead	ug/L	20	2200		2200		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3989

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3989 **SAS No.:** E3989

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB72716BS							
Cadmium	ug/L	1000	902		90.2	82 - 119	P
Lead	ug/L	5000	4700		94.0	83 - 119	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CFS-LGPND-40L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68063 **Lab Sample ID :** E3989-01L **SDG No.:** E3989

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.0	U	25.0	U			P
Lead	66.7		130	U	100.0		P

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE

SDG: E4117
Sampled October 2013

TCLP CADMIUM and LEAD

CFS-LGPND-53	(E4117-01)	CFS-LGPND-54	(E4117-02)
CFS-LGPND-55	(E4117-03)	CFS-LGPND-56	(E4117-04)
CFS-LGPND-57	(E4117-05)	CFS-LGPND-58	(E4117-06)
CFS-LGPND-59	(E4117-07)	CFS-LGPND-60	(E4117-08)
CFS-LGPND-61	(E4117-09)	ESS-FDDA-62	(E4117-10)
ESS-FDDA-63	(E4117-11)	ESS-FDDA-64	(E4117-12)
CFS-LGPND-65	(E4117-13)	CFS-LGPND-67	(E4117-16)
CFS-LGPND-68	(E4117-17)		

DATA ASSESSMENT

An inorganics data package containing analytical results for seventeen soil samples was received from VIASANT,LLC on 16Nov13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) was used as a technical reference.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 11DEC13

James B. Baldwin

SAMPLE HISTORY

Sample holding times are calculated between the Verified Time of Sample Receipt (VTSR) and the time of analysis. Soil samples must be begin TCLP extractions within XX days of collection. Digested extracts must be analyzed within 180 days.

This sample delivery group contained seventeen soil samples that were collected from the Townley Hill Road site on 10Oct13 and 11Oct13. The entire group of samples was shipped to the laboratory, via FedEx, on 11Oct13 and was received on 14Oct13. The samples arrived intact and properly chilled. A cooler temperature of 6°C was recorded by the laboratory at the time of receipt. The samples underwent TCLP extractions between 14Oct13 and 15Oct13. This work was performed correctly. The TCLP extracts were digested on 15Oct13 and analyzed on 17Oct13. The SW-846 and ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

CONTRACT REQUIED DETECTION LIMIT STANARDS (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

A CRI standard was analyzed at the beginning of the analysis sequence and periodically throughout the run. These checks produced acceptable recoveries of cadmium and lead.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory

technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

An Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of the analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

CFS-LGPND-65 was selected for matrix spiking. Two portions of this sample were spiked with cadmium and lead. The recoveries reported for these additions demonstrated acceptable levels of measurement accuracy.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

CFS-LGPND-65 was analyzed as a laboratory split duplicate. The recoveries from the matrix spiked samples created from CFS-LGPND-65 were also evaluated. Both pairs of cadmium and lead samples demonstrated an acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

An aqueous spiked blank (LCS) was digested and analyzed with this group of samples. This LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times MDL are not considered.

CFS-LGPND-65 was prepared as a serial dilution. The recoveries reported from this sample satisfied the ASP acceptance criteria.

DATA QUALIFICATIONS

CBS Townley Hill Site Sampled October 2013

CFS-LGPND-53 (E4117-01)
CFS-LGPND-54 (E4117-02)
CFS-LGPND-55 (E4117-03)
CFS-LGPND-56 (E4117-04)
CFS-LGPND-57 (E4117-05)
CFS-LGPND-58 (E4117-06)
CFS-LGPND-59 (E4117-07)
CFS-LGPND-60 (E4117-08)
CFS-LGPND-61 (E4117-09)
ESS-FDDA-62 (E4117-10)
ESS-FDDA-63 (E4117-11)
ESS-FDDA-64 (E4117-12)
CFS-LGPND-65 (E4117-13)
CFS-LGPND-67 (E4117-16)
CFS-LGPND-68 (E4117-17)

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-53	SDG No.:	E4117
Lab Sample ID:	E4117-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-54	SDG No.:	E4117
Lab Sample ID:	E4117-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-55	SDG No.:	E4117
Lab Sample ID:	E4117-03	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-56	SDG No.:	E4117
Lab Sample ID:	E4117-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-57	SDG No.:	E4117
Lab Sample ID:	E4117-05	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-58	SDG No.:	E4117
Lab Sample ID:	E4117-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-59	SDG No.:	E4117
Lab Sample ID:	E4117-07	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-60	SDG No.:	E4117
Lab Sample ID:	E4117-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-61	SDG No.:	E4117
Lab Sample ID:	E4117-09	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	ESS-FDDA-62	SDG No.:	E4117
Lab Sample ID:	E4117-10	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	ESS-FDDA-63	SDG No.:	E4117
Lab Sample ID:	E4117-11	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/10/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	ESS-FDDA-64	SDG No.:	E4117
Lab Sample ID:	E4117-12	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/11/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-65	SDG No.:	E4117
Lab Sample ID:	E4117-13	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	28.1	J	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/11/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-67	SDG No.:	E4117
Lab Sample ID:	E4117-16	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/11/13
Project:	Catlin NY	Date Received:	10/14/13
Client Sample ID:	CFS-LGPND-68	SDG No.:	E4117
Lab Sample ID:	E4117-17	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/15/13	10/17/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/15/13	10/17/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	479.15	496	96.6	95 - 105	P	10/17/2013	12:03	LB68235
	Lead	982.76	1002	98.1	95 - 105	P	10/17/2013	12:03	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Cadmium	5.69	6	94.8	70 - 130	P	10/17/2013	12:12	LB68235
	Lead	11.81	12	98.4	70 - 130	P	10/17/2013	12:12	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Cadmium	2509.7	2500	100.4	90 - 110	P	10/17/2013	12:43	LB68235
	Lead	5061.4	5000	101.2	90 - 110	P	10/17/2013	12:43	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Cadmium	5.62	6	93.7	70 - 130	P	10/17/2013	12:47	LB68235
	Lead	11.68	12	97.3	70 - 130	P	10/17/2013	12:47	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Cadmium	2418.7	2500	96.7	90 - 110	P	10/17/2013	13:38	LB68235
	Lead	4868.7	5000	97.4	90 - 110	P	10/17/2013	13:38	LB68235
CCV03	Cadmium	2485.9	2500	99.4	90 - 110	P	10/17/2013	14:34	LB68235
	Lead	5019.9	5000	100.4	90 - 110	P	10/17/2013	14:34	LB68235
CCV04	Cadmium	2686	2500	107.4	90 - 110	P	10/17/2013	15:24	LB68235
	Lead	5369.9	5000	107.4	90 - 110	P	10/17/2013	15:24	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Cadmium	5.73	6	95.5	70 - 130	P	10/17/2013	15:28	LB68235
	Lead	11.44	12	95.3	70 - 130	P	10/17/2013	15:28	LB68235

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Cadmium	2460.9	2500	98.4	90 - 110	P	10/17/2013	16:18	LB68235
	Lead	5003.7	5000	100.1	90 - 110	P	10/17/2013	16:18	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Cadmium	6.4	6	106.7	70 - 130	P	10/17/2013	16:22	LB68235
	Lead	12.95	12	107.9	70 - 130	P	10/17/2013	16:22	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Cadmium	2531.5	2500	101.3	90 - 110	P	10/17/2013	17:17	LB68235
	Lead	5102.3	5000	102.0	90 - 110	P	10/17/2013	17:17	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Cadmium	5.87	6	97.8	70 - 130	P	10/17/2013	17:30	LB68235
	Lead	12.52	12	104.3	70 - 130	P	10/17/2013	17:30	LB68235

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Cadmium	2519.2	2500	100.8	90 - 110	P	10/17/2013	18:27	LB68235
	Lead	5098.3	5000	102	90 - 110	P	10/17/2013	18:27	LB68235

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.81	6	96.8	40 - 160	P	10/17/2013	12:22	LB68235
	Lead	12.4	12	103.3	40 - 160	P	10/17/2013	12:22	LB68235

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	12:18	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	12:18	LB68235

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	12:52	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	12:52	LB68235
CCB02	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	13:42	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	13:42	LB68235
CCB03	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	14:38	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	14:38	LB68235
CCB04	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	15:32	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	15:32	LB68235
CCB05	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	16:31	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	16:31	LB68235
CCB06	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	17:34	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	17:34	LB68235
CCB07	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/17/2013	18:31	LB68235
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/17/2013	18:31	LB68235

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4117

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB72887BL		WATER		Batch Number:		PB72887		Prep Date:	10/15/2013	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/17/2013	12:56	LB68235
	Lead	30.0	<60.0	U	30.0	60.0	P	10/17/2013	12:56	LB68235
Sample ID	**Analyte**	**Result (ug/L)**	**Acceptance Limit**	**Conc Qual**	**LOD ug/L**	**CRQL ug/L**	**M**	**Analysis Date**	**Analysis Time**	**Run**
PB72887TB		WATER		Batch Number:		PB72887		Prep Date:	10/15/2013	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/17/2013	13:04	LB68235
	Lead	30.0	<60.0	U	30.0	60.0	P	10/17/2013	13:04	LB68235

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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	2.8				10/17/2013	12:26	LB68235
	Lead	11.27	10	112.7	80 - 120%	10/17/2013	12:26	LB68235
ICSAB01	Cadmium	1035.2	989	104.7	80 - 120%	10/17/2013	12:31	LB68235
	Lead	65.07	58	112.2	80 - 120%	10/17/2013	12:31	LB68235

metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4117

contract: VIAS01 **lab code:** CHEM **case no.:** E4117 **sas no.:** E4117

matrix: WATER **sample id:** E4117-13RE1 **client id:** CFS-LGPND-65MS

Percent Solids for Sample: NA **Spiked ID:** E4117-14 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	833		5.0	U	1000	83.3		P
Lead	ug/L	74 - 119	4000		28.1	J	5000	79		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4117

contract: VIAS01 **lab code:** CHEM **case no.:** E4117 **sas no.:** E4117

matrix: WATER **sample id:** E4117-13RE1 **client id:** CFS-LGPND-65MSD

Percent Solids for Sample: NA **Spiked ID:** E4117-15 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	841		5.0	U	1000	84.1		P
Lead	ug/L	74 - 119	4100		28.1	J	5000	81		P

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Metals
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Client: VIASANT, LLC SDG No.: E4117

Contract: VIAS01 Lab Code: CHEM Case No.: E4117 SAS No.: E4117

Matrix: Level: LOW Client ID:

Sample ID: Spiked ID:

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Matrix: WATER **Sample ID:** E4117-13RE1 **Client ID:** CFS-LGPND-65DUP

Percent Solids for Sample: NA **Duplicate ID** E4117-13DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0	U	5.0	U			P
Lead	ug/L	20	28.1	J	33.2	J	17		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

Matrix: WATER **Sample ID:** E4117-14RE1 **Client ID:** CFS-LGPND-65MSD

Percent Solids for Sample: NA **Duplicate ID** E4117-15 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	833		841		1		P
Lead	ug/L	20	4000		4100		2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4117

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4117 **SAS No.:** E4117

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Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB72887BS							
Cadmium	ug/L	1000	899		89.9	82 - 119	P
Lead	ug/L	5000	4600		92.0	83 - 119	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CFS-LGPND-65L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68235 **Lab Sample ID :** E4117-13L **SDG No.:** E4117

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.0	U	25.0	U			P
Lead	28.1	J	130	U	100.0		P

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE

SDG: E4194
Sampled October 2013

TCLP CADMIUM and LEAD

CFS-LGPND-66	(E4194-01)	CFS-LGPND-69	(E4194-02)
ESS-CFSA-70	(E4194-03)	ESS-CFSA-71	(E4194-04)
ESS-CFSA-72	(E4194-05)	ESS-CFSA-73	(E4194-06)
ESS-CFSA-74	(E4194-07)	ESS-CFSA-75	(E4194-08)
ESS-CFSA-76	(E4194-09)	ESS-CFSA-77	(E4194-10)
ESS-CFSA-78	(E4194-11)	ESS-CFSA-79	(E4194-12)
ESS-CFSA-80	(E4194-13)	ESS-CFSA-81	(E4194-16)
ESS-CFSA-82	(E4194-17)	ESS-CFSA-83	(E4194-18)
ESS-CFSA-84	(E4194-19)	ESS-CFSA-85	(E4194-20)
ESS-CFSA-86	(E4194-21)	ESS-CFSA-87	(E4194-22)
ESS-CFSA-88	(E4194-23)		

DATA ASSESSMENT

An inorganics data package containing analytical results for twenty-one soil samples was received from VIASANT,LLC on 16Nov13. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Townley Hill Road Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods, addressed determinations of TCLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) was used as a technical reference.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 12 DEC 13
James B. Baldwin

SAMPLE HISTORY

Sample holding times are calculated between the Verified Time of Sample Receipt (VTSR) and the time of analysis. Soil samples must be begin TCLP extractions within XX days of collection. Digested extracts must be analyzed within 180 days.

This sample delivery group contained twenty-one soil samples that were collected from the Townley Hill Road site on 22Oct13. The entire group of samples was shipped to the laboratory, via FedEx, on the day of collection, arriving the next day. The samples were received intact and properly chilled. A cooler temperature of 6°C was recorded by the laboratory at the time of receipt. The samples underwent TCLP extractions between 23Oct13 and 24Oct13. This work was performed correctly. The TCLP extracts were digested and analyzed on 24Oct13. The SW-846 and ASP holding time limitations were satisfied.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks associated with this group of samples demonstrated acceptable levels of instrument performance and stability.

CONTRACT REQUIED DETECTION LIMIT STANARDS (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

A CRI standard was analyzed at the beginning of each analysis sequence and periodically throughout the run. These checks produced acceptable recoveries of cadmium and lead.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory

technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination exceeding PQL.

INTERFERENCE CHECK SAMPLE (ICS)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA and ICSAB, were analyzed at the beginning of the analytical sequence. The recoveries reported from these standards demonstrated acceptable method performance.

PREDIGESTION SPIKE

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

ESS-CFSA-80 and ESS-CFSA-83 were selected for matrix spiking. Two portions of each sample were spiked with cadmium and lead. The recoveries reported for these additions demonstrated acceptable levels of measurement precision and accuracy.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

ESS-CFSA-80 and ESS-CFSA-83 were analyzed as laboratory split duplicates. The recoveries from the matrix spiked samples created from ESS-CFSA-80 and ESS-CFSA-83 were also evaluated. All four pairs of cadmium and lead samples demonstrated an acceptable level of measurement precision.

LABORATORY CONTROL STANDARD

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two aqueous spiked blanks (LCS) were digested and analyzed with this group of samples. Both of these LCS produced acceptable recoveries of cadmium and lead.

SERIAL DILUTION SAMPLE

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times MDL are not considered.

ESS-CFSA-80 and ESS-CFSA-83 were prepared as serial dilutions. The recoveries reported from these samples satisfied the ASP acceptance criteria.

DATA QUALIFICATIONS

CBS Townley Hill Site Sampled October 2013

CFS-LGPND-66 (E4194-01)
CFS-LGPND-69 (E4194-02)
ESS-CFSA-70 (E4194-03)
ESS-CFSA-71 (E4194-04)
ESS-CFSA-72 (E4194-05)
ESS-CFSA-73 (E4194-06)
ESS-CFSA-74 (E4194-07)
ESS-CFSA-75 (E4194-08)
ESS-CFSA-76 (E4194-09)
ESS-CFSA-77 (E4194-10)
ESS-CFSA-78 (E4194-11)
ESS-CFSA-79 (E4194-12)
ESS-CFSA-80 (E4194-13)
ESS-CFSA-81 (E4194-16)
ESS-CFSA-82 (E4194-17)
ESS-CFSA-83 (E4194-18)
ESS-CFSA-84 (E4194-19)
ESS-CFSA-85 (E4194-20)
ESS-CFSA-86 (E4194-21)
ESS-CFSA-87 (E4194-22)
ESS-CFSA-88 (E4194-23)

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CFS-LGPND-66	SDG No.:	E4194
Lab Sample ID:	E4194-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	CFS-LGPND-69	SDG No.:	E4194
Lab Sample ID:	E4194-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	6.55	J	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-70	SDG No.:	E4194
Lab Sample ID:	E4194-03	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	50		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-71	SDG No.:	E4194
Lab Sample ID:	E4194-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-72	SDG No.:	E4194
Lab Sample ID:	E4194-05	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-73	SDG No.:	E4194
Lab Sample ID:	E4194-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-74	SDG No.:	E4194
Lab Sample ID:	E4194-07	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	27.9	J	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-75	SDG No.:	E4194
Lab Sample ID:	E4194-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-76	SDG No.:	E4194
Lab Sample ID:	E4194-09	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	30.8		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-77	SDG No.:	E4194
Lab Sample ID:	E4194-10	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	21.2	J	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

7.50

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-78	SDG No.:	E4194
Lab Sample ID:	E4194-11	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	333		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-79	SDG No.:	E4194
Lab Sample ID:	E4194-12	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	163		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-80	SDG No.:	E4194
Lab Sample ID:	E4194-13	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-81	SDG No.:	E4194
Lab Sample ID:	E4194-16	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	36.4		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-82	SDG No.:	E4194
Lab Sample ID:	E4194-17	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	106		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	206		1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-83	SDG No.:	E4194
Lab Sample ID:	E4194-18	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	35.6		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-84	SDG No.:	E4194
Lab Sample ID:	E4194-19	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	43.1		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-85	SDG No.:	E4194
Lab Sample ID:	E4194-20	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-86	SDG No.:	E4194
Lab Sample ID:	E4194-21	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	19.3	J	1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-87	SDG No.:	E4194
Lab Sample ID:	E4194-22	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	88.7		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	10/22/13
Project:	Catlin NY	Date Received:	10/23/13
Client Sample ID:	ESS-CFSA-88	SDG No.:	E4194
Lab Sample ID:	E4194-23	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	157		1	5	15.0	30	ug/L	10/24/13	10/24/13	SW6010
7439-92-1	Lead	30	U	1	26	30.0	60	ug/L	10/24/13	10/24/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	478.05	496	96.4	95 - 105	P	10/24/2013	12:36	LB68337
	Lead	965.05	1002	96.3	95 - 105	P	10/24/2013	12:36	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Cadmium	5.53	6	92.2	70 - 130	P	10/24/2013	13:17	LB68337
	Lead	12.32	12	102.7	70 - 130	P	10/24/2013	13:17	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Cadmium	2452.4	2500	98.1	90 - 110	P	10/24/2013	13:38	LB68337
	Lead	4783.5	5000	95.7	90 - 110	P	10/24/2013	13:38	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Cadmium	5.73	6	95.5	70 - 130	P	10/24/2013	13:42	LB68337
	Lead	11.59	12	96.6	70 - 130	P	10/24/2013	13:42	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Cadmium	2494.6	2500	99.8	90 - 110	P	10/24/2013	14:28	LB68337
	Lead	4780.3	5000	95.6	90 - 110	P	10/24/2013	14:28	LB68337
CCV03	Cadmium	2550.5	2500	102.0	90 - 110	P	10/24/2013	15:41	LB68337
	Lead	4777.5	5000	95.6	90 - 110	P	10/24/2013	15:41	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Cadmium	6.2	6	103.3	70 - 130	P	10/24/2013	15:45	LB68337
	Lead	12.03	12	100.3	70 - 130	P	10/24/2013	15:45	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Cadmium	2516.8	2500	100.7	90 - 110	P	10/24/2013	16:24	LB68337
	Lead	4690.6	5000	93.8	90 - 110	P	10/24/2013	16:24	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Cadmium	6.22	6	103.7	70 - 130	P	10/24/2013	16:28	LB68337
	Lead	11.77	12	98.1	70 - 130	P	10/24/2013	16:28	LB68337

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Cadmium	2558.4	2500	102.3	90 - 110	P	10/24/2013	17:45	LB68337
	Lead	4692.4	5000	93.8	90 - 110	P	10/24/2013	17:45	LB68337
CCV06	Cadmium	2558.1	2500	102.3	90 - 110	P	10/24/2013	18:36	LB68337
	Lead	4660.7	5000	93.2	90 - 110	P	10/24/2013	18:36	LB68337
CCV07	Cadmium	2572	2500	102.9	90 - 110	P	10/24/2013	19:26	LB68337
	Lead	4685	5000	93.7	90 - 110	P	10/24/2013	19:26	LB68337
CCV08	Cadmium	2583.4	2500	103.3	90 - 110	P	10/24/2013	20:04	LB68337
	Lead	4702.1	5000	94.0	90 - 110	P	10/24/2013	20:04	LB68337

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Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.55	6	92.5	40 - 160	P	10/24/2013	13:26	LB68337
	Lead	11.93	12	99.4	40 - 160	P	10/24/2013	13:26	LB68337

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	13:21	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	13:21	LB68337

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	13:46	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	13:46	LB68337
CCB02	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	14:32	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	14:32	LB68337
CCB03	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	15:49	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	15:49	LB68337
CCB04	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	16:32	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	16:32	LB68337
CCB05	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	17:49	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	17:49	LB68337
CCB06	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	18:40	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	18:40	LB68337
CCB07	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	19:30	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	19:30	LB68337
CCB08	Cadmium	3.0	+/-6.0	U	3.0	6.0	P	10/24/2013	20:08	LB68337
	Lead	6.0	+/-12.0	U	6.0	12.0	P	10/24/2013	20:08	LB68337

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB73040BL		**WATER**		**Batch Number:**		**PB73040**		**Prep Date:**	**10/24/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/24/2013	18:10	LB68337
	Lead	30.0	<60.0	U	30.0	60.0	P	10/24/2013	18:10	LB68337

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB73040TB		**WATER**		**Batch Number:**		**PB73040**		**Prep Date:**	**10/24/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/24/2013	18:19	LB68337
	Lead	30.0	<60.0	U	30.0	60.0	P	10/24/2013	18:19	LB68337

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB73041BL		**WATER**		**Batch Number:**		**PB73041**		**Prep Date:**	**10/24/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/24/2013	16:36	LB68337
	Lead	30.0	<60.0	U	30.0	60.0	P	10/24/2013	16:36	LB68337

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB73041TB		**WATER**		**Batch Number:**		**PB73041**		**Prep Date:**	**10/24/2013**	
	Cadmium	15.0	<30.0	U	15.0	30.0	P	10/24/2013	16:44	LB68337
	Lead	30.0	<60.0	U	30.0	60.0	P	10/24/2013	16:44	LB68337

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	-2.19				10/24/2013	13:30	LB68337
	Lead	11.94	10	119.4	80 - 120%	10/24/2013	13:30	LB68337
ICSAB01	Cadmium	1034.9	989	104.6	80 - 120%	10/24/2013	13:34	LB68337
	Lead	63.87	58	110.1	80 - 120%	10/24/2013	13:34	LB68337

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4194

contract: VIAS01 **lab code:** CHEM **case no.:** E4194 **sas no.:** E4194

matrix: WATER **sample id:** E4194-13 **client id:** ESS-CFSA-80MS

Percent Solids for Sample: NA **Spiked ID:** E4194-14 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	903		5.0	U	1000	90.3		P
Lead	ug/L	74 - 119	4000		26.0	U	5000	80.0		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4194

contract: VIAS01 **lab code:** CHEM **case no.:** E4194 **sas no.:** E4194

matrix: WATER **sample id:** E4194-13 **client id:** ESS-CFSA-80MSD

Percent Solids for Sample: NA **Spiked ID:** E4194-15 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	898		5.0	U	1000	89.8		P
Lead	ug/L	74 - 119	4000		26.0	U	5000	80.0		P

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4194

contract: VIAS01 **lab code:** CHEM **case no.:** E4194 **sas no.:** E4194

matrix: WATER **sample id:** E4194-18 **client id:** ESS-CFSA-83MS

Percent Solids for Sample: NA **Spiked ID:** E4194-18MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	905		35.6		1000	87		P
Lead	ug/L	74 - 119	3900		26.0	U	5000	78.0		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E4194

contract: VIAS01 **lab code:** CHEM **case no.:** E4194 **sas no.:** E4194

matrix: WATER **sample id:** E4194-18 **client id:** ESS-CFSA-83MSD

Percent Solids for Sample: NA **Spiked ID:** E4194-18MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	912		35.6		1000	88		P
Lead	ug/L	74 - 119	3900		26.0	U	5000	78.0		P

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Metals
- 5b -

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Matrix: WATER **Sample ID:** E4194-13 **Client ID:** ESS-CFSA-80DUP

Percent Solids for Sample: NA **Duplicate ID** E4194-13DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0	U	5.0	U			P
Lead	ug/L	20	26.0	U	26.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Matrix: WATER **Sample ID:** E4194-14 **Client ID:** ESS-CFSA-80MSD

Percent Solids for Sample: NA **Duplicate ID** E4194-15 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	903		898		1		P
Lead	ug/L	20	4000		4000		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Matrix: WATER **Sample ID:** E4194-18 **Client ID:** ESS-CFSA-83DUP

Percent Solids for Sample: NA **Duplicate ID** E4194-18DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	35.6		35.2		1		P
Lead	ug/L	20	26.0	U	26.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Matrix: WATER **Sample ID:** E4194-18MS **Client ID:** ESS-CFSA-83MSD

Percent Solids for Sample: NA **Duplicate ID** E4194-18MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	905		912		1		P
Lead	ug/L	20	3900		3900		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB73040BS							
Cadmium	ug/L	1000	926		92.6	82 - 119	P
Lead	ug/L	5000	4300		86.0	83 - 119	P

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Metals

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E4194

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E4194 **SAS No.:** E4194

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB73041BS							
Cadmium	ug/L	1000	923		92.3	82 - 119	P
Lead	ug/L	5000	4300		86.0	83 - 119	P

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Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

ESS-CFSA-80L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68337 **Lab Sample ID :** E4194-13L **SDG No.:** E4194

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.0	U	25.0	U			P
Lead	26.0	U	130	U			P

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Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

ESS-CFSA-83L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Lb No.:** lb68337 **Lab Sample ID :** E4194-18L **SDG No.:** E4194

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	35.6		32.5	J	9		P
Lead	26.0	U	130	U			P

DATA USABILITY SUMMARY REPORT

CBS TOWNLEY HILL SITE

SAMPLED 8/20/13 and 8/23/13

TCLP CADMIUM and LEAD
SPLP CADMIUM and LEAD

Prepared for:

VIASANT, LLC.
606 E. Baltimore Pike, Floor 3
Media, PA 19063

Prepared by:

DATAVAL, Inc.
518 Hooper Rd., PMB 283
Endwell, NY 13760

DATA USABILITY SUMMARY REPORT

for

VIASANT, LLC

606 E. Baltimore Pike

Floor 3

Media, PA 19063

CBS TOWNLEY HILL SITE
Stabilized Calcium/Fluoride Sludge
Cadmium Impacted Soils
SDG: E3410 and E3468
Sampled 8/20/2013 and 8/23/2013

TCLP SAMPLES

CFS-15A-01A	(E3410-01)	CFS-15B-02A	(E3410-02)
CFS-16A-03A	(E3410-03)	CFS-16B-04A	(E3410-04)
CFS-17A-05A	(E3410-05)	CFS-17B-06A	(E3410-06)
CFS-21A-07A	(E3410-07)	CFS-12B-08A	(E3410-08)
CFS-22B-09A	(E3410-09)	CFS-22A-10A	(E3410-10)
CFS-18A-11A	(E3410-11)	CFS-18B-12A	(E3410-12)
CFS-19A-13A	(E3410-13)	CFS-19B-14A	(E3410-14)
CFS-20A-15A	(E3410-15)	CFS-20B-16A	(E3410-16)
TP7-16-13A-17	(E3410-17)	TP7-16-13B-18	(E3410-18)
TP7-16-14A-17	(E3468-01)	TP7-16-14B-20	(E3468-02)
FDDA-1.2.11-21	(E3468-05)	FDDA-3-22	(E3468-06)
FDDA-4-23	(E3468-07)	FDDA-5-24	(E3468-08)
FDDA-6.12-25	(E3468-09)	FDDA-7-26	(E3468-10)
FDDA-8-27	(E3468-11)	FDDA-9-28	(E3468-14)
FDDA-10-29	(E3468-15)		

SPLP SAMPLES

CFS-15A-01A	(E3410-19)	CFS-15B-02A	(E3410-20)
CFS-16A-03A	(E3410-21)	CFS-16B-04A	(E3410-22)
CFS-17A-05A	(E3410-23)	CFS-17B-06A	(E3410-24)
CFS-21A-07A	(E3410-25)	CFS-12B-08A	(E3410-26)
CFS-22B-09A	(E3410-27)	CFS-22A-10A	(E3410-28)
CFS-18A-11A	(E3410-29)	CFS-18B-12A	(E3410-30)
CFS-19A-13A	(E3410-31)	CFS-19B-14A	(E3410-32)
CFS-20A-15A	(E3410-33)	CFS-20B-16A	(E3410-34)
TP7-16-13A-17	(E3410-35)	TP7-16-13B-18	(E3410-36)
TP7-16-14A-19	(E3468-16)	TP7-16-14B-20	(E3468-17)
FDDA-1.2.11-21	(E3468-20)	FDDA-3-22	(E3468-21)
FDDA-4-23	(E3468-22)	FDDA-5-24	(E3468-23)
FDDA-6.12-25	(E3468-24)	FDDA-7-26	(E3468-25)
FDDA-8-27	(E3468-26)	FDDA-9-28	(E3468-29)
FDDA-10-29	(E3468-30)		

DATA ASSESSMENT

An ASP data package containing analytical results for twenty-nine soil samples was received from VIASANT, LLC on 12Sep13. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the CBS Townley Hill Site, were identified by Chain of Custody documents and traceable through the work of CHEMTECH, the laboratory contracted for analysis. Analyses, performed according to SW-846 Methods 1311 and 1312, addressed determinations of TCLP cadmium and lead, and SPLP cadmium and lead. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 13, Sep. 2006, Evaluation of Metals Data for the Contract Laboratory Program) was used as technical references.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible, completely usable, and without qualifications in its present form. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B Baldwin Date: 18Sep13

James B. Baldwin

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the Verified Time of Sample Receipt (VTSR). Samples must remain chilled to 4°C between the time of collection and the time of analysis. Soil samples must undergo TCLP and SPLP extractions within 180 days of receipt. TCLP and SPLP extracts must be analyzed within 180 days of extraction.

This project included two sample delivery groups containing twenty-nine soil samples that were collected from the CBS Townley Hill Site on 20Aug13 and 23Aug13. Eighteen samples were collected on 20Aug13. The remaining eleven samples were collected on 23Aug13. Both groups of samples were shipped to the laboratory, via FedEx, on the day of collection. The shipments arrived intact and packed with ice the next morning. Cooler temperatures of 5°C and 6°C were recorded in the laboratory at the time of receipt.

It is noted that there was no documentation to indicate that custody seals were present and intact on the sample coolers.

Samples collected on 20Aug13 underwent TCLP extractions on 21Aug13 and SPLP extractions on 22Aug13. The extract solutions were digested and analyzed on 23Aug13. Samples collected on 23Aug13 underwent TCLP and SPLP extractions on 27Aug13. The extraction solutions were then digested and analyzed on 28Aug13. The TCLP and SPLP extraction solutions were selected correctly, and the samples were tumbled at 30 revolutions per minute for 18 hours. The ambient temperature was maintained at 25°C during the extractions. The analysis of this group of samples was completed within the holding time limitations of ASP protocol.

Calibrations

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. The calibration checks reported from the ICP sequences containing samples from this

program included unacceptable recoveries of cadmium (132%,147%) and lead (137%). This performance, however, was not associated with samples from this program. Data qualifications are not required.

Contract Required Detection Limit Standards (CRDL)

To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic adsorption sequence. CRDL standards must produce recoveries between 70% and 130%.

CRI standards were run periodically throughout each ICP analysis sequence. The recoveries reported for these standards satisfied the ASP acceptance criteria.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of targeted analyte contamination.

Interference Check Sample (ICSA, ICSAB)

ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference check standards were reported from the beginning of each ICP analysis sequence. ICS standards were not analyzed at the end of each run as required by ASP protocol. Although data has not been qualified due to this omission, the laboratory should be warned of such errors.

The ICS performance associated with the analytes targeted by this program satisfied the ASP acceptance criteria.

Predigestion Spike

The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

CFS-15A-01A, TP7-16-14B-20 and FDDA-8-27 were selected for matrix spiking. Two aliquots of the TCLP and SPLP extracts from each of these samples were spiked with cadmium and lead. The recoveries reported for these additions satisfied the ASP acceptance criteria.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

The TCLP and SPLP extraction solutions from CFS-15A-01A, TP7-16-14B-20 and FDDA-8-27 were analyzed as laboratory split duplicate samples. The concentrations obtained from these samples, as well as from each MS/MSD pair, demonstrated an acceptable level of measurement precision.

Field split duplicate samples were not included in this group of samples.

Laboratory Control Standards

Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Two aqueous spiked blanks (LCS) were digested and analyzed with this group of samples. Both LCS produced acceptable recoveries of cadmium and lead.

Serial Dilution Samples

Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

CFS-15A-01A, TP7-16-14B-20 and FDDA-8-27 were prepared as serial dilutions. Of the analytes present in these samples, at a concentration exceeding fifty times IDL, none differed from the diluted results by more than 10%. The ASP requirements were satisfied.

SUMMARY OF QUALIFIED DATA

CBS Townley Hill Site

SAMPLED: August 20, 2013 and August 23, 2013

TCLP SAMPLES

CFS-15A-01A	(E3410-01)
CFS-15B-02A	(E3410-02)
CFS-16A-03A	(E3410-03)
CFS-16B-04A	(E3410-04)
CFS-17A-05A	(E3410-05)
CFS-17B-06A	(E3410-06)
CFS-21A-07A	(E3410-07)
CFS-12B-08A	(E3410-08)
CFS-22B-09A	(E3410-09)
CFS-22A-10A	(E3410-10)
CFS-18A-11A	(E3410-11)
CFS-18B-12A	(E3410-12)
CFS-19A-13A	(E3410-13)
CFS-19B-14A	(E3410-14)
CFS-20A-15A	(E3410-15)
CFS-20B-16A	(E3410-16)
TP7-16-13A-17	(E3410-17)
TP7-16-13B-18	(E3410-18)
TP7-16-14A-17	(E3468-01)
TP7-16-14B-20	(E3468-02)
FDDA-1.2.11-21	(E3468-05)
FDDA-3-22	(E3468-06)
FDDA-4-23	(E3468-07)
FDDA-5-24	(E3468-08)
FDDA-6.12-25	(E3468-09)
FDDA-7-26	(E3468-10)
FDDA-8-27	(E3468-11)
FDDA-9-28	(E3468-14)
FDDA-10-29	(E3468-15)

SUMMARY OF QUALIFIED DATA

CBS Townley Hill Site

SAMPLED: August 20, 2013 and August 23, 2013

SPLP SAMPLES

CFS-15A-01A	(E3410-19)
CFS-15B-02A	(E3410-20)
CFS-16A-03A	(E3410-21)
CFS-16B-04A	(E3410-22)
CFS-17A-05A	(E3410-23)
CFS-17B-06A	(E3410-24)
CFS-21A-07A	(E3410-25)
CFS-12B-08A	(E3410-26)
CFS-22B-09A	(E3410-27)
CFS-22A-10A	(E3410-28)
CFS-18A-11A	(E3410-29)
CFS-18B-12A	(E3410-30)
CFS-19A-13A	(E3410-31)
CFS-19B-14A	(E3410-32)
CFS-20A-15A	(E3410-33)
CFS-20B-16A	(E3410-34)
TP7-16-13A-17	(E3410-35)
TP7-16-13B-18	(E3410-36)
TP7-16-14A-19	(E3468-16)
TP7-16-14B-20	(E3468-17)
FDDA-1.2.11-21	(E3468-20)
FDDA-3-22	(E3468-21)
FDDA-4-23	(E3468-22)
FDDA-5-24	(E3468-23)
FDDA-6.12-25	(E3468-24)
FDDA-7-26	(E3468-25)
FDDA-8-27	(E3468-26)
FDDA-9-28	(E3468-29)
FDDA-10-29	(E3468-30)

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-15A-01A	SDG No.:	E3410
Lab Sample ID:	E3410-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-15B-02A	SDG No.:	E3410
Lab Sample ID:	E3410-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	34.3	J	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-16A-03A	SDG No.:	E3410
Lab Sample ID:	E3410-03	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-16B-04A	SDG No.:	E3410
Lab Sample ID:	E3410-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-17A-05A	SDG No.:	E3410
Lab Sample ID:	E3410-05	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-17B-06A	SDG No.:	E3410
Lab Sample ID:	E3410-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	85		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-21A-07A	SDG No.:	E3410
Lab Sample ID:	E3410-07	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	5.4	J	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	817		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-21B-08A	SDG No.:	E3410
Lab Sample ID:	E3410-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	243		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-22B-09A	SDG No.:	E3410
Lab Sample ID:	E3410-09	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	380		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-22A-10A	SDG No.:	E3410
Lab Sample ID:	E3410-10	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-18A-11A	SDG No.:	E3410
Lab Sample ID:	E3410-11	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	64.5		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-18B-12A	SDG No.:	E3410
Lab Sample ID:	E3410-12	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	31.8	J	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-19A-13	SDG No.:	E3410
Lab Sample ID:	E3410-13	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	719		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-19B-14	SDG No.:	E3410
Lab Sample ID:	E3410-14	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	476		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-20A-15	SDG No.:	E3410
Lab Sample ID:	E3410-15	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	148		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-20B-16	SDG No.:	E3410
Lab Sample ID:	E3410-16	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	142		1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	TP7-16-13A-17	SDG No.:	E3410
Lab Sample ID:	E3410-17	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	TP7-16-13B-18	SDG No.:	E3410
Lab Sample ID:	E3410-18	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	TP7-16-14A-19	SDG No.:	E3468
Lab Sample ID:	E3468-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	TP7-16-14B-20	SDG No.:	E3468
Lab Sample ID:	E3468-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-1.2.11-21	SDG No.:	E3468
Lab Sample ID:	E3468-05	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-3-22	SDG No.:	E3468
Lab Sample ID:	E3468-06	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-4-23	SDG No.:	E3468
Lab Sample ID:	E3468-07	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-5-24	SDG No.:	E3468
Lab Sample ID:	E3468-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	31	J	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-6.12-25	SDG No.:	E3468
Lab Sample ID:	E3468-09	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-7-26	SDG No.:	E3468
Lab Sample ID:	E3468-10	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	31.8	J	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

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Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-8-27	SDG No.:	E3468
Lab Sample ID:	E3468-11	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-9-28	SDG No.:	E3468
Lab Sample ID:	E3468-14	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-10-29	SDG No.:	E3468
Lab Sample ID:	E3468-15	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	15	U	1	5	15	30	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	30	U	1	26	30	60	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	TCLPMetals Group3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-15A-01A	SDG No.:	E3410
Lab Sample ID:	E3410-19	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	42.1		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-15B-02A	SDG No.:	E3410
Lab Sample ID:	E3410-20	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	22.7		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-16A-03A	SDG No.:	E3410
Lab Sample ID:	E3410-21	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	8.88		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-16B-04A	SDG No.:	E3410
Lab Sample ID:	E3410-22	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	6.12		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

7.45

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-17A-05A	SDG No.:	E3410
Lab Sample ID:	E3410-23	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	6.54		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-17B-06A	SDG No.:	E3410
Lab Sample ID:	E3410-24	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	127		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-21A-07A	SDG No.:	E3410
Lab Sample ID:	E3410-25	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	1080		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-21B-08A	SDG No.:	E3410
Lab Sample ID:	E3410-26	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	184		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-22B-09A	SDG No.:	E3410
Lab Sample ID:	E3410-27	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	237		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-22A-10A	SDG No.:	E3410
Lab Sample ID:	E3410-28	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	73.5		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-18A-11A	SDG No.:	E3410
Lab Sample ID:	E3410-29	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	0.75	J	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	278		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-18B-12A	SDG No.:	E3410
Lab Sample ID:	E3410-30	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	0.88	J	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	155		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-19A-13	SDG No.:	E3410
Lab Sample ID:	E3410-31	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	2.54	J	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	629		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-19B-14	SDG No.:	E3410
Lab Sample ID:	E3410-32	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	0.53	J	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	578		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-20A-15	SDG No.:	E3410
Lab Sample ID:	E3410-33	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	308		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	CFS-20B-16	SDG No.:	E3410
Lab Sample ID:	E3410-34	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	249		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	TP7-16-13A-17	SDG No.:	E3410
Lab Sample ID:	E3410-35	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	19.4		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/20/13
Project:	Catlin NY	Date Received:	08/21/13
Client Sample ID:	TP7-16-13B-18	SDG No.:	E3410
Lab Sample ID:	E3410-36	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/23/13	08/23/13	SW6010
7439-92-1	Lead	191		1	2.6	3	6	ug/L	08/23/13	08/23/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	TP7-16-14A-19	SDG No.:	E3468
Lab Sample ID:	E3468-16	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	40.8		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	TP7-16-14B-20	SDG No.:	E3468
Lab Sample ID:	E3468-17	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	46.3		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-1.2.11-21	SDG No.:	E3468
Lab Sample ID:	E3468-20	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	5	J	1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-3-22	SDG No.:	E3468
Lab Sample ID:	E3468-21	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	3.76	J	1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-4-23	SDG No.:	E3468
Lab Sample ID:	E3468-22	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	4.94	J	1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-5-24	SDG No.:	E3468
Lab Sample ID:	E3468-23	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	10.6		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-6.12-25	SDG No.:	E3468
Lab Sample ID:	E3468-24	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	2.47	J	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	8.27		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-7-26	SDG No.:	E3468
Lab Sample ID:	E3468-25	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	0.98	J	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	9.6		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-8-27	SDG No.:	E3468
Lab Sample ID:	E3468-26	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	0.9	J	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	7.12		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-9-28	SDG No.:	E3468
Lab Sample ID:	E3468-29	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	13.1		1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	VIASANT, LLC	Date Collected:	08/23/13
Project:	Catlin NY	Date Received:	08/24/13
Client Sample ID:	FDDA-10-29	SDG No.:	E3468
Lab Sample ID:	E3468-30	Matrix:	SPLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	2.41	J	1	0.5	1.5	3	ug/L	08/28/13	08/28/13	SW6010
7439-92-1	Lead	5.9	J	1	2.6	3	6	ug/L	08/28/13	08/28/13	SW6010

Color Before:	Colorless	Clarity Before:		Texture:	Clear
Color After:	Colorless	Clarity After:		Artifacts:	Clear
Comments:	SPLP MetalGroup3				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	486.51	496.0	98.1	90 - 110	P	08/28/2013	12:41	LB67476A
	Lead	988.34	1002.0	98.6	90 - 110	P	08/28/2013	12:41	LB67476A
LLICV01	Cadmium	5.86	6.0	97.7	70 - 130	P	08/28/2013	12:45	LB67476A
	Lead	12.12	12.0	101.0	70 - 130	P	08/28/2013	12:45	LB67476A
CCV01	Cadmium	2469.30	2500.0	98.8	90 - 110	P	08/28/2013	13:05	LB67476A
	Lead	4941.70	5000.0	98.8	90 - 110	P	08/28/2013	13:05	LB67476A
LLCCV01	Cadmium	5.94	6.0	99.0	70 - 130	P	08/28/2013	13:09	LB67476A
	Lead	10.98	12.0	91.5	70 - 130	P	08/28/2013	13:09	LB67476A
CCV02	Cadmium	2451.60	2500.0	98.1	90 - 110	P	08/28/2013	13:55	LB67476A
	Lead	4925.90	5000.0	98.5	90 - 110	P	08/28/2013	13:55	LB67476A
CCV03	Cadmium	2398.80	2500.0	96.0	90 - 110	P	08/28/2013	14:44	LB67476A
	Lead	4828.00	5000.0	96.6	90 - 110	P	08/28/2013	14:44	LB67476A
CCV04	Cadmium	2409.90	2500.0	96.4	90 - 110	P	08/28/2013	15:31	LB67476A
	Lead	4848.90	5000.0	97.0	90 - 110	P	08/28/2013	15:31	LB67476A
CCV05	Cadmium	2396.20	2500.0	95.8	90 - 110	P	08/28/2013	16:21	LB67476A
	Lead	4818.00	5000.0	96.4	90 - 110	P	08/28/2013	16:21	LB67476A
CCV06	Cadmium	2409.00	2500.0	96.4	90 - 110	P	08/28/2013	17:11	LB67476A
	Lead	4842.90	5000.0	96.9	90 - 110	P	08/28/2013	17:11	LB67476A
CCV07	Cadmium	2413.40	2500.0	96.5	90 - 110	P	08/28/2013	18:00	LB67476A
	Lead	4853.00	5000.0	97.1	90 - 110	P	08/28/2013	18:00	LB67476A
CCV08	Cadmium	2409.40	2500.0	96.4	90 - 110	P	08/28/2013	18:55	LB67476A
	Lead	4839.40	5000.0	96.8	90 - 110	P	08/28/2013	18:55	LB67476A
CCV09	Cadmium	2425.30	2500.0	97.0	90 - 110	P	08/28/2013	19:48	LB67476A
	Lead	4884.50	5000.0	97.7	90 - 110	P	08/28/2013	19:48	LB67476A
LLCCV02	Cadmium	5.59	6.0	93.2	70 - 130	P	08/28/2013	19:52	LB67476A
	Lead	9.75	12.0	81.2	70 - 130	P	08/28/2013	19:52	LB67476A
CCV10	Cadmium	2377.80	2500.0	95.1	90 - 110	P	08/28/2013	20:42	LB67476A
	Lead	4772.60	5000.0	95.5	90 - 110	P	08/28/2013	20:42	LB67476A
LLCCV03	Cadmium	5.68	6.0	94.7	70 - 130	P	08/28/2013	20:46	LB67476A
	Lead	10.40	12.0	86.7	70 - 130	P	08/28/2013	20:46	LB67476A
CCV11	Cadmium	2386.80	2500.0	95.5	90 - 110	P	08/28/2013	21:37	LB67476A
	Lead	4791.10	5000.0	95.8	90 - 110	P	08/28/2013	21:37	LB67476A

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Cadmium	7.94	6.0	132.3	70 - 130	P	08/28/2013	21:41	LB67476A
	Lead	15.51	12.0	129.2	70 - 130	P	08/28/2013	21:41	LB67476A
CCV12	Cadmium	2371.50	2500.0	94.9	90 - 110	P	08/28/2013	22:31	LB67476A
	Lead	4763.10	5000.0	95.3	90 - 110	P	08/28/2013	22:31	LB67476A
LLCCV05	Cadmium	7.05	6.0	117.5	70 - 130	P	08/28/2013	22:35	LB67476A
	Lead	14.06	12.0	117.2	70 - 130	P	08/28/2013	22:35	LB67476A
CCV13	Cadmium	2368.90	2500.0	94.8	90 - 110	P	08/28/2013	23:26	LB67476A
	Lead	4768.20	5000.0	95.4	90 - 110	P	08/28/2013	23:26	LB67476A
LLCCV06	Cadmium	5.49	6.0	91.5	70 - 130	P	08/28/2013	23:31	LB67476A
	Lead	11.21	12.0	93.4	70 - 130	P	08/28/2013	23:31	LB67476A
CCV14	Cadmium	2346.60	2500.0	93.9	90 - 110	P	08/29/2013	00:22	LB67476A
	Lead	4715.00	5000.0	94.3	90 - 110	P	08/29/2013	00:22	LB67476A
LLCCV07	Cadmium	5.61	6.0	93.5	70 - 130	P	08/29/2013	00:26	LB67476A
	Lead	10.63	12.0	88.6	70 - 130	P	08/29/2013	00:26	LB67476A
CCV15	Cadmium	2370.00	2500.0	94.8	90 - 110	P	08/29/2013	01:11	LB67476A
	Lead	4764.70	5000.0	95.3	90 - 110	P	08/29/2013	01:11	LB67476A
CCV16	Cadmium	2379.30	2500.0	95.2	90 - 110	P	08/29/2013	01:41	LB67476A
	Lead	4789.90	5000.0	95.8	90 - 110	P	08/29/2013	01:41	LB67476A
LLCCV08	Cadmium	8.81	6.0	146.8	70 - 130	P	08/29/2013	01:45	LB67476A
	Lead	16.47	12.0	137.2	70 - 130	P	08/29/2013	01:45	LB67476A

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Initial Calibration Source:

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.62	6.0	93.7	40 - 160	P	08/28/2013	12:53	LB67476A
	Lead	12.06	12.0	100.5	0 - 200	P	08/28/2013	12:53	LB67476A

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	12:49	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	12:49	LB67476A
CCB01	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	13:13	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	13:13	LB67476A
CCB02	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	13:59	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	13:59	LB67476A
CCB03	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	14:49	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	14:49	LB67476A
CCB04	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	15:35	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	15:35	LB67476A
CCB05	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	16:25	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	16:25	LB67476A
CCB06	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	17:15	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	17:15	LB67476A
CCB07	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	18:04	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	18:04	LB67476A
CCB08	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	18:59	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	18:59	LB67476A
CCB09	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	19:56	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	19:56	LB67476A
CCB10	Cadmium	0.6	+/-3.0	J	0.5	3.0	P	08/28/2013	20:50	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	20:50	LB67476A
CCB11	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	21:45	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	21:45	LB67476A
CCB12	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	22:40	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	22:40	LB67476A
CCB13	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/28/2013	23:35	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/28/2013	23:35	LB67476A
CCB14	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/29/2013	00:30	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/29/2013	00:30	LB67476A
CCB15	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/29/2013	01:15	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/29/2013	01:15	LB67476A
CCB16	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/29/2013	01:49	LB67476A
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/29/2013	01:49	LB67476A

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Metals
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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3468

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
EXT BLK (08/27/13)										
		SPLP		**Batch Number:**		**PB71973**		**Prep Date:**	**08/28/2013**	
	Cadmium	0.500	<3.000	U	0.500	3.000	P	08/28/2013	14:16	LB67476A
	Lead	2.600	<6.000	U	2.600	6.000	P	08/28/2013	14:16	LB67476A
		TCLP		**Batch Number:**		**PB71972**		**Prep Date:**	**08/28/2013**	
	Cadmium	5.000	<30.000	U	5.000	30.000	P	08/28/2013	17:31	LB67476A
	Lead	26.000	<60.000	U	26.000	60.000	P	08/28/2013	17:31	LB67476A
PB71972BL										
		TCLP		**Batch Number:**		**PB71972**		**Prep Date:**	**08/28/2013**	
	Cadmium	5.000	<30.000	U	5.000	30.000	P	08/28/2013	17:19	LB67476A
	Lead	26.000	<60.000	U	26.000	60.000	P	08/28/2013	17:19	LB67476A
PB71973BL										
		SPLP		**Batch Number:**		**PB71973**		**Prep Date:**	**08/28/2013**	
	Cadmium	0.500	<3.000	U	0.500	3.000	P	08/28/2013	14:03	LB67476A
	Lead	2.600	<6.000	U	2.600	6.000	P	08/28/2013	14:03	LB67476A

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	2.5				08/28/2013	12:57	LB67476A
	Lead	10.5	10	105.0	0 - 200%	08/28/2013	12:57	LB67476A
ICSAB01	Cadmium	998	989	100.9	80 - 120%	08/28/2013	13:01	LB67476A
	Lead	59.3	61	97.2	80 - 120%	08/28/2013	13:01	LB67476A

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: TCLP **sample id:** E3468-02 **client id:** TP7-16-14B-20S

Percent Solids for Sample: 0 **Spiked ID:** E3468-03S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	1837.8000		5.0000	U	2000.00	91.9		P
Lead	ug/L	74 - 119	9153.1000		26.0000	U	10000.00	91.5		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: TCLP **sample id:** E3468-02 **client id:** TP7-16-14B-20SD

Percent Solids for Sample: 0 **Spiked ID:** E3468-04SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	1919.5000		5.0000	U	2000.00	96.0		P
Lead	ug/L	74 - 119	9584.6010		26.0000	U	10000.00	95.8		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: TCLP **sample id:** E3468-11 **client id:** FDDA-8-27S

Percent Solids for Sample: 0 **Spiked ID:** E3468-12S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	2044.2000		5.0000	U	2000.00	102.2		P
Lead	ug/L	74 - 119	10222.0000		26.0000	U	10000.00	102.2		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: TCLP **sample id:** E3468-11 **client id:** FDDA-8-27SD

Percent Solids for Sample: 0 **Spiked ID:** E3468-13SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	1915.2000		5.0000	U	2000.00	95.8		P
Lead	ug/L	74 - 119	9572.3000		26.0000	U	10000.00	95.7		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: SPLP **sample id:** E3468-17 **client id:** TP7-16-14B-20S

Percent Solids for Sample: 0 **Spiked ID:** E3468-18S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	188.6800		0.5000	U	200.00	94.3		P
Lead	ug/L	74 - 119	984.7900		46.3300		1000.00	93.8		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: SPLP **sample id:** E3468-17 **client id:** TP7-16-14B-20SD

Percent Solids for Sample: 0 **Spiked ID:** E3468-19SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	188.4900		0.5000	U	200.00	94.2		P
Lead	ug/L	74 - 119	988.6200		46.3300		1000.00	94.2		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: SPLP **sample id:** E3468-26 **client id:** FDDA-8-27S

Percent Solids for Sample: 0 **Spiked ID:** E3468-27S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	207.1100		0.9000	J	200.00	103.1		P
Lead	ug/L	74 - 119	1037.4000		7.1200		1000.00	103.0		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3468

contract: VIAS01 **lab code:** CHEM **case no.:** E3468 **sas no.:** E3468

matrix: SPLP **sample id:** E3468-26 **client id:** FDDA-8-27SD

Percent Solids for Sample: 0 **Spiked ID:** E3468-28SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	196.1000		0.9000	J	200.00	97.6		P
Lead	ug/L	74 - 119	981.4800		7.1200		1000.00	97.4		P

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Metals
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Client: VIASANT, LLC SDG No.: E3468

Contract: VIAS01 Lab Code: CHEM Case No.: E3468 SAS No.: E3468

Matrix: _____ Level: LOW Client ID: _____

Sample ID: _____ Spiked ID: _____

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: TCLP **Sample ID:** E3468-02 **Client ID:** TP7-16-14B-20D

Percent Solids for Sample: 0 **Duplicate ID** E3468-02D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0000	U	5.0000	U			P
Lead	ug/L	20	26.0000	U	26.0000	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: TCLP **Sample ID:** E3468-02 **Client ID:** TP7-16-14B-20SD

Percent Solids for Sample: 0 **Duplicate ID** E3468-04SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	1837.8000		1919.5000		4.3		P
Lead	ug/L	20	9153.1000		9584.6010		4.6		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: TCLP **Sample ID:** E3468-11 **Client ID:** FDDA-8-27D

Percent Solids for Sample: 0 **Duplicate ID** E3468-11D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0000	U	5.0000	U			P
Lead	ug/L	20	26.0000	U	26.0000	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: TCLP **Sample ID:** E3468-11 **Client ID:** FDDA-8-27SD

Percent Solids for Sample: 0 **Duplicate ID** E3468-13SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	2044.2000		1915.2000		6.5		P
Lead	ug/L	20	10222.0000		9572.3000		6.6		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: SPLP **Sample ID:** E3468-17 **Client ID:** TP7-16-14B-20D

Percent Solids for Sample: 0 **Duplicate ID** E3468-17D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	0.5000	U	0.5000	U			P
Lead	ug/L	20	46.3300		46.3600		0.1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: SPLP **Sample ID:** E3468-17 **Client ID:** TP7-16-14B-20SD

Percent Solids for Sample: 0 **Duplicate ID** E3468-19SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	188.6800		188.4900		0.1		P
Lead	ug/L	20	984.7900		988.6200		0.4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: SPLP **Sample ID:** E3468-26 **Client ID:** FDDA-8-27D

Percent Solids for Sample: 0 **Duplicate ID** E3468-26D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	0.9000	J	0.9700	J	7.5		P
Lead	ug/L	20	7.1200		9.9700		33.4		P

OK Difference < CRQL

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Matrix: SPLP **Sample ID:** E3468-26 **Client ID:** FDDA-8-27SD

Percent Solids for Sample: 0 **Duplicate ID** E3468-28SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	207.1100		196.1000		5.5		P
Lead	ug/L	20	1037.4000		981.4800		5.5		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71972BS							
Cadmium	ug/L	2000.0	1824.10		91.2	82 - 119	P
Lead	ug/L	10000.0	9236.70		92.4	83 - 119	P

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Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3468

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3468 **SAS No.:** E3468

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71973BS							
Cadmium	ug/L	200.0	184.82		92.4	82 - 119	P
Lead	ug/L	1000.0	931.70		93.2	83 - 119	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TP7-16-14B-20L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3468 **SAS No.:** E3468 **SDG No.:** E3468

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.00	U	25.00	U			P
Lead	26.00	U	130.00	U			P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

FDDA-8-27L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3468 **SAS No.:** E3468 **SDG No.:** E3468

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.00	U	25.00	U			P
Lead	26.00	U	130.00	U			P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TP7-16-14B-20L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3468 **SAS No.:** E3468 **SDG No.:** E3468

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	0.50	U	2.50	U			P
Lead	46.33		46.90		1.2		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

FDDA-8-27L

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3468 **SAS No.:** E3468 **SDG No.:** E3468

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	0.90	J	2.50	U	100.0		P
Lead	7.12		15.50	J	117.7		P

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Cadmium	479.39	496.0	96.7	90 - 110	P	08/23/2013	14:21	LB67441
	Lead	983.60	1002.0	98.2	90 - 110	P	08/23/2013	14:21	LB67441
LLICV01	Cadmium	7.43	6.0	123.8	70 - 130	P	08/23/2013	14:25	LB67441
	Lead	15.03	12.0	125.2	70 - 130	P	08/23/2013	14:25	LB67441
CCV01	Cadmium	2427.90	2500.0	97.1	90 - 110	P	08/23/2013	14:46	LB67441
	Lead	4883.30	5000.0	97.7	90 - 110	P	08/23/2013	14:46	LB67441
LLCCV01	Cadmium	7.06	6.0	117.7	70 - 130	P	08/23/2013	14:50	LB67441
	Lead	13.16	12.0	109.7	70 - 130	P	08/23/2013	14:50	LB67441
CCV02	Cadmium	2427.40	2500.0	97.1	90 - 110	P	08/23/2013	15:11	LB67441
	Lead	4881.80	5000.0	97.6	90 - 110	P	08/23/2013	15:11	LB67441
CCV03	Cadmium	2424.20	2500.0	97.0	90 - 110	P	08/23/2013	16:00	LB67441
	Lead	4881.70	5000.0	97.6	90 - 110	P	08/23/2013	16:00	LB67441
CCV04	Cadmium	2417.90	2500.0	96.7	90 - 110	P	08/23/2013	16:51	LB67441
	Lead	4866.20	5000.0	97.3	90 - 110	P	08/23/2013	16:51	LB67441
CCV05	Cadmium	2415.30	2500.0	96.6	90 - 110	P	08/23/2013	17:33	LB67441
	Lead	4835.00	5000.0	96.7	90 - 110	P	08/23/2013	17:33	LB67441
CCV06	Cadmium	2428.50	2500.0	97.1	90 - 110	P	08/23/2013	18:30	LB67441
	Lead	4877.60	5000.0	97.6	90 - 110	P	08/23/2013	18:30	LB67441
CCV07	Cadmium	2447.70	2500.0	97.9	90 - 110	P	08/23/2013	19:23	LB67441
	Lead	4918.70	5000.0	98.4	90 - 110	P	08/23/2013	19:23	LB67441
CCV08	Cadmium	2437.80	2500.0	97.5	90 - 110	P	08/23/2013	20:09	LB67441
	Lead	4894.70	5000.0	97.9	90 - 110	P	08/23/2013	20:09	LB67441
CCV09	Cadmium	2452.50	2500.0	98.1	90 - 110	P	08/23/2013	20:59	LB67441
	Lead	4929.70	5000.0	98.6	90 - 110	P	08/23/2013	20:59	LB67441
CCV10	Cadmium	2402.60	2500.0	96.1	90 - 110	P	08/23/2013	21:49	LB67441
	Lead	4828.20	5000.0	96.6	90 - 110	P	08/23/2013	21:49	LB67441
CCV11	Cadmium	2431.40	2500.0	97.3	90 - 110	P	08/23/2013	22:39	LB67441
	Lead	4882.30	5000.0	97.6	90 - 110	P	08/23/2013	22:39	LB67441
CCV12	Cadmium	2360.90	2500.0	94.4	90 - 110	P	08/23/2013	23:29	LB67441
	Lead	4740.40	5000.0	94.8	90 - 110	P	08/23/2013	23:29	LB67441
LLCCV02	Cadmium	5.87	6.0	97.8	70 - 130	P	08/23/2013	23:33	LB67441
	Lead	10.84	12.0	90.3	70 - 130	P	08/23/2013	23:33	LB67441

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV13	Cadmium	2444.00	2500.0	97.8	90 - 110	P	08/24/2013	00:10	LB67441
	Lead	4912.60	5000.0	98.3	90 - 110	P	08/24/2013	00:10	LB67441
LLCCV03	Cadmium	6.79	6.0	113.2	70 - 130	P	08/24/2013	00:14	LB67441
	Lead	12.85	12.0	107.1	70 - 130	P	08/24/2013	00:14	LB67441

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Metals

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CRDL STANDARD FOR AA & ICP

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Initial Calibration Source:

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Cadmium	5.93	6.0	98.8	40 - 160	P	08/23/2013	14:34	LB67441
	Lead	10.42	12.0	86.8	0 - 200	P	08/23/2013	14:34	LB67441

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	14:29	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	14:29	LB67441
CCB01	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	14:54	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	14:54	LB67441
CCB02	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	15:15	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	15:15	LB67441
CCB03	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	16:04	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	16:04	LB67441
CCB04	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	16:55	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	16:55	LB67441
CCB05	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	17:37	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	17:37	LB67441
CCB06	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	18:34	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	18:34	LB67441
CCB07	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	19:28	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	19:28	LB67441
CCB08	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	20:13	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	20:13	LB67441
CCB09	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	21:03	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	21:03	LB67441
CCB10	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	21:53	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	21:53	LB67441
CCB11	Cadmium	1.5	+/-3.0	J	0.5	3.0	P	08/23/2013	22:43	LB67441
	Lead	2.9	+/-6.0	J	2.6	6.0	P	08/23/2013	22:43	LB67441
CCB12	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/23/2013	23:37	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/23/2013	23:37	LB67441
CCB13	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/24/2013	00:23	LB67441
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/24/2013	00:23	LB67441

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Metals
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PREPARATION BLANK SUMMARY

Client: VIASANT, LLC **SDG No.:** E3410

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
EXT BLK (08/22/13)		**SPLP**		**Batch Number:**		**PB71909**		**Prep Date:**	**08/23/2013**	
	Cadmium	0.500	<3.000	U	0.500	3.000	P	08/23/2013	20:26	LB67441
	Lead	2.600	<6.000	U	2.600	6.000	P	08/23/2013	20:26	LB67441
EXT BLK (8/22/13)		**TCLP**		**Batch Number:**		**PB71898**		**Prep Date:**	**08/23/2013**	
	Cadmium	5.000	<30.000	U	5.000	30.000	P	08/23/2013	15:31	LB67441
	Lead	26.000	<60.000	U	26.000	60.000	P	08/23/2013	15:31	LB67441
PB71898BL		**TCLP**		**Batch Number:**		**PB71898**		**Prep Date:**	**08/23/2013**	
	Cadmium	5.000	<30.000	U	5.000	30.000	P	08/23/2013	15:19	LB67441
	Lead	26.000	<60.000	U	26.000	60.000	P	08/23/2013	15:19	LB67441
PB71909BL		**SPLP**		**Batch Number:**		**PB71909**		**Prep Date:**	**08/23/2013**	
	Cadmium	0.500	<3.000	U	0.500	3.000	P	08/23/2013	20:17	LB67441
	Lead	2.600	<6.000	U	2.600	6.000	P	08/23/2013	20:17	LB67441

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Metals
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INTERFERENCE CHECK SAMPLE

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Cadmium	2.9				08/23/2013	14:38	LB67441
	Lead	11.5	10	115.0	0 - 200%	08/23/2013	14:38	LB67441
ICSAB01	Cadmium	988	989	99.9	80 - 120%	08/23/2013	14:42	LB67441
	Lead	60.9	61	99.8	80 - 120%	08/23/2013	14:42	LB67441

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3410

contract: VIAS01 **lab code:** CHEM **case no.:** E3410 **sas no.:** E3410

matrix: TCLP **sample id:** E3410-01 **client id:** CFS-15A-01AS

Percent Solids for Sample: 0 **Spiked ID:** E3410-01S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	1967.6000		5.0000	U	2000.00	98.4		P
Lead	ug/L	74 - 119	9764.2000		26.0000	U	10000.00	97.6		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3410

contract: VIAS01 **lab code:** CHEM **case no.:** E3410 **sas no.:** E3410

matrix: TCLP **sample id:** E3410-01 **client id:** CFS-15A-01ASD

Percent Solids for Sample: 0 **Spiked ID:** E3410-01SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	1978.1000		5.0000	U	2000.00	98.9		P
Lead	ug/L	74 - 119	9828.5000		26.0000	U	10000.00	98.3		P

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metals
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MATRIX SPIKE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3410

contract: VIAS01 **lab code:** CHEM **case no.:** E3410 **sas no.:** E3410

matrix: SPLP **sample id:** E3410-19 **client id:** CFS-15A-01AS

Percent Solids for Sample: 0 **Spiked ID:** E3410-19S **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	212.7500		0.5000	U	200.00	106.4		P
Lead	ug/L	74 - 119	1110.2000		42.0500		1000.00	106.8		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VIASANT, LLC **level:** low **sdg no.:** E3410

contract: VIAS01 **lab code:** CHEM **case no.:** E3410 **sas no.:** E3410

matrix: SPLP **sample id:** E3410-19 **client id:** CFS-15A-01ASD

Percent Solids for Sample: 0 **Spiked ID:** E3410-19SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	ug/L	72 - 121	212.9400		0.5000	U	200.00	106.5		P
Lead	ug/L	74 - 119	1110.2000		42.0500		1000.00	106.8		P

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Metals
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Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Matrix: TCLP **Sample ID:** E3410-01 **Client ID:** CFS-15A-01AD

Percent Solids for Sample: 0 **Duplicate ID** E3410-01D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	5.0000	U	5.0000	U			P
Lead	ug/L	20	26.0000	U	26.0000	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Matrix: TCLP **Sample ID:** E3410-01 **Client ID:** CFS-15A-01ASD

Percent Solids for Sample: 0 **Duplicate ID** E3410-01SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	1967.6000		1978.1000		0.5		P
Lead	ug/L	20	9764.2000		9828.5000		0.7		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Matrix: SPLP **Sample ID:** E3410-19 **Client ID:** CFS-15A-01AD

Percent Solids for Sample: 0 **Duplicate ID** E3410-19D **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	0.5000	U	0.5000	U			P
Lead	ug/L	20	42.0500		41.9900		0.1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: VIASANT, LLC **Level:** LOW **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Matrix: SPLP **Sample ID:** E3410-19 **Client ID:** CFS-15A-01ASD

Percent Solids for Sample: 0 **Duplicate ID** E3410-19SD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cadmium	ug/L	20	212.7500		212.9400		0.1		P
Lead	ug/L	20	1110.2000		1110.2000		0.0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71898BS							
Cadmium	ug/L	2000.0	1813.90		90.7	82 - 119	P
Lead	ug/L	10000.0	9200.20		92.0	83 - 119	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VIASANT, LLC **SDG No.:** E3410

Contract: VIAS01 **Lab Code:** CHEM **Case No.:** E3410 **SAS No.:** E3410

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB71909BS							
Cadmium	ug/L	200.0	180.26		90.1	82 - 119	P
Lead	ug/L	1000.0	910.74		91.1	83 - 119	P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CFS-15A-01AL

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3410 **SAS No.:** E3410 **SDG No.:** E3410

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	5.00	U	25.00	U			P
Lead	26.00	U	130.00	U			P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

CFS-15A-01AL

Lab Name: Chemtech Consulting Group **Contract:** VIAS01

Lab Code: CHEM **Case No.:** E3410 **SAS No.:** E3410 **SDG No.:** E3410

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/l

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Cadmium	0.50	U	2.50	U			P
Lead	42.05		48.25		14.7		P