Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9187-03**	**Date Sampled**	08/06/2014
Sample ID	**AP33-DO(35')**	**Time Sampled**	13:00
		Date Received	08/07/2014
		Date Filtered	08/11/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	201.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Preparation Factor**	*Method Code*
DHE (1)	08/13/2014	11:00	10.0	U	cells/ml	10	1.6	4.98	EISTLAW-ATL068
								crossing threshold=	non detected, conc undetermined

* Preparaton factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Sample Information			
Lab ID	**9187-04**	**Date Sampled**	08/06/2014
Sample ID	**AP34-DO(33')**	**Time Sampled**	11:30
		Date Received	08/07/2014
		Date Filtered	08/11/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	190.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Preparation Factor**	*Method Code*
DHE (1)	08/13/2014	11:00	2.4	J	cells/ml	10	1.6	5.26	EISTLAW-ATL068
								crossing threshold= 31.2	

* Preparaton factor is based on volume actually filtered compared to maximum volume of 1,000 ml

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(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Sample Information			
Lab ID	**9187-05**	**Date Sampled**	08/06/2014
Sample ID	**AP35-DO(33')**	**Time Sampled**	11:00
		Date Received	08/07/2014
		Date Filtered	08/11/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	274.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Preparation Factor**	*Method Code*
DHE (1)	08/13/2014	11:00	7.3	J	cells/ml	10	1.6	3.65	EISTLAW-ATL068
								crossing threshold= 29.3	

* Preparaton factor is based on volume actually filtered compared to maximum volume of 1,000 ml

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( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

3.0 QC Summary

Sample Batch:DHE

Lab ID	Analysis dates	QC batch
9187- 1	8/13/2014	081314-DHE
9187- 2	8/13/2014	081314-DHE
9187- 3	8/13/2014	081314-DHE
9187- 4	8/13/2014	081314-DHE
9187- 5	8/13/2014	081314-DHE

Calibration Summary: DHE

Calibration Standard :

	Calibration Date /time:	08/13/2014 13:50	
Sample:	expected copy number	Crossing Threshold	copies observed
std 1	16,700,000	10.82	30400000
std 2	1670000	14.78	1440000
std 3	167000	18.06	115000
std 4	1670	20.62	15900
std6	167	28.92	26.5
std7	16.0	30.74	6.5
std8	1.6	32.19	2.1

curve = y=33.171-2.987log(x)

r2=0.9971

QC Method Blank Summary: DHE

QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
081314-DHE	8/13/2014	13:50	DHE	10	U	cells/ml	1.6

QC Positive Control Summary: DHE

QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
081314-DHE	8/13/2014	13:50	DHE	1920000		cells/ml	1.6

Positive control is SDC-9 at about OD=1

CB & I

17 Princess Road
Lawrenceville, NJ 08648
Tel: 609/895-5370
Fax: 609/895-1858

Reduced Deliverable Package

Prepared for
Varian, Beverly MA

Lab ID
9198

Project Number: 77152728 05000000

Samples Received
15-Aug-14

Report
22-Aug-14

NJDEP Certified Lab 11001

Randi K Rothmel, PhD 8-22-14
Randi K Rothmel, PhD Date
Laboratory Director

Table of Contents

1.0 General Information

Sample ID Table

Lab ID	Location ID	SDG
9198- 1	AP13-DO(49)	081514_3

Chain of Custody (s)

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

7186 SDG-081514-3

ALS Environmental — 1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: Varian	Project Number: 150151
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB:I 150 Royall St. Canton, MA 02021	
Phone #: 617-589-6102	Email: raymond.cadorette@cbi.com
Sampler's Signature:	Sampler's Printed Name: Dale Dooley

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Perfluorocarbons							REMARKS/ ALTERNATE DESCRIPTION
AP13-DOC(49)		8/14/14	12:00	GW	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
Missed Sample from 8/6/14
Contact Pernilla Haley for more info

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
Standard ✓
REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Dale Dooley	Signature: Paul Hedman	Signature	Signature	Signature	Signature
Printed Name: CBI	Printed Name: CBI	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 8/14/14 1400	Firm: 8/15/14 945	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Lab ID 9198
Client: VARIAN
Date Received: 8-15-14

CBI -Federal Services Analytical and Treatability Laboratories Internal Chain of Custody

Pg 1 of 1

Sample ID	Parameter	Bottle Type	Perservative	Date/Time Removed	Relinquishing Custodian Initials	Receiving Analyst Initials	Date/Time Returned	Receiving Custodian Initials	Relinquishing Analyst Initials
1	gRC prep	1L	np	8/18/14 6:30	n	~	8/18/14 10:50	n	~
1	gRC	1L	np	8/18/14 1520	n	CA	Depleted	n	CA

Methodology Review

Dehalococcoides sp in groundwater

The microbial communities from the groundwater samples are screened for the presence of *Dehalococcoides* sp in groundwater by PCR-DNA methodology using a Roche Real-Time LightCycler PCR instrumentation according to internal SOP. Results are reported in units of cells/ml

Samples are filtered within 7 days of receipt using Sterivex filter cassette (mMillipore SVGV010RS,0.22uM). Filters are then stored at -80^{o}C until processed (cells lysed and DNA extracted) for performing qPCR to quantify *Dehalococcoccoides* sp DNA. The filter paper is placed in a bead beating tube and is extracted using the ZR Soil Microbe DNA MicroPrep (ZymoResearch) following the instructions provided by the Manufacture, and eluted in 100ul buffer. The number of *Dehalococcoides* sp in the samples is determined based on the number of chromosomes detectd in 2 ul of the eluted DNA via qPCR using a RAPID Real-Time LightCycler PCR instrument. A negative control and standard curve is generated using known quantities of dehalococcoides DNA.

The standard curve is used to calculate the cells/ml in the test samples. Raw data is reported as a crossing threshold. Higher bacteria counts are asociated with lower crossing thresholds

Reporting Qualifiers

U- The compound was not detected at the indicated PQL concentration.

J- Approximate concentration of the compound. Detection of compound above calculated MDL but below the PQL of the analytical method. 99% confidence that the compound is present.

D- Diluted sample

B- The analyte was observed in laboratory blank as well as the sample - for EPA SW856 8260b and EPA 624 analysis

E- Compound detected above the linear range of the curve. Value given is an estimated value.

2.0 Sample Results

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9198-01**	**Date Sampled**	08/14/2014
Sample ID	**AP13-DO(49)**	**Time Sampled**	12:00
		Date Received	08/15/2014
		Date Filtered	08/18/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	214.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Preparation Factor**	*Method Code*
DHE (1)	08/18/2014	14:03	42.0		cells/ml	10	1.6	4.67	EISTLAW-ATL068
								crossing threshold= 28.5	

* Preparaton factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
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( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

3.0 QC Summary

Sample Batch:DHE

Lab ID	Analysis dates	QC batch
9198- 1	8/18/2014	081814-2DHE

Calibration Summary: DHE

Calibration Standard :

	Calibration Date /time:	08/18/2014 14:03	
Sample:	expected copy number	Crossing Threshold	copies observed
std 1	167,000,000	5.518	219000000
std 2	16,700,000	9.659	15400000
std 3	1670000	12.65	2280000
std 4	167000	16.78	162000
std 5	16700	20.94	11300
std6	1670	25.03	823
std7	167	27.88	133
std8	16.0	29.84	38

curve = y=35.516-36389log(x)

r2=0.9964

QC Method Blank Summary: DHE

QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
081814-2DHE	8/18/2014	14:03	DHE	10	U	cells/ml	1.6

QC Positive Control Summary: DHE

QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
081814-2DHE	8/18/2014	14:03	DHE	1260000		cells/ml	1.6

Positive control is SDC-9 at about OD=1

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Reduced Deliverable Package

Prepared for
Varian, Beverly MA

Lab ID
9108

Project Number: 77150151 03000000

Samples Received
9-Apr-14

Report
30-Apr-14

NJDEP Certified Lab 11001

4-30-14

Randi K Rothmel, PhD **Date**
Laboratory Director

Table of Contents

1.0 General Information

Sample delivery Group	040914_2

Sample ID Table

Lab ID	Location ID
9108- 1	AP13-DO(51')
9108- 2	AP23-DO(48')
9108- 3	AP24-DO(47')
9108- 4	AP33-DO(36')
9108- 5	AP34-DO(36')
9108- 6	AP35-DO(35')
9108- 7	MW-9 (20')
9108- 8	OB15S (18')

Chain of Custody (s)

17 Princess Rd
Lawrenceville, NJ 08648
609-895-5370/ 609-895-1858
CB&I - Federal Services, LLC

CHAIN OF CUSTODY

4 SDG 040914-2

Ref. Document #

Page 1 of 1

Lab ID # (lab use) 9108 ☐ R&D

Project Contact: Raymond Cadorette 617-589-6102 (Name & phone #)

Send Report To:	Raymond Cadorette
Phone/Fax Number:	617-589-6102
Address:	150 Royall Street
City/State:	Canton, MA 02021

Project Number/Cost code: 77150151 / 03000000
Project Name / Location: Varian / Beverly, MA
Purchase Order #: 873489

Shipment Date: 4.8.14
Waybill/Airbill Number:
Lab Destination:
Lab Contact Name / ph. #:

Sampler's Name(s):

Lab No.	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of containers	Container size	Preservative HCL	NaOH	HNO_3	H_2SO_4	Ice	Analyses Requested: Dehalococcoides sp.	Any Additional information	Turn Around Time Requested
1	AP13-DO (51')	GW	4.8.14	1030	G	GW	1	1L					√	√		
2	AP23-DO (48')			0900		GW	1	1L					√	√		
3	AP24-DO (47')			1100		GW	1	1L					√	√		
4	AP33-DO (36')			1300		GW	1	1L					√	√		
5	AP34-DO (36')			1245		GW	1	1L					√	√		
6	AP35-DO (35')			1330		GW	1	1L					√	√		
7	MW-9 (20')			1500		GW	1	1L					√	√		
8	OB15-S (18')		"	1400	"	GW	1	1L					√	√		

Special Instructions:

Known Waste Stream Circle:
RCRA PCB/dioxin PAH/oil RAD Corrosive Flammable Reactive

QC/Data Package Level Required:
I II III IV NJ EDD GIS EDD Preliminary data

Relinquished By: Date: 4.9.14 Time: 1530
Received By: Date: 4/9/14 Time: 10:15
Relinquished By: Date: Time:
Received By: Date: Time:
Relinquished By: Date: Time:
Received By: Date: Time:

G/C Codes
C = Composite G = Grab

QC Package Codes
Level I = data summary
Level II = data summary + basic QC
Level III = New Jersey QC reduced deliverable
Level IV = Full deliverable CLP package

Cooler temperature upon arrival at Lab:

Instructions: Do not Fill Shaded Areas; Check R&D Box if R&D samples Only

Lab ID 9108

Client:

Date Received:

CBI -Federal Services Analytical and Treatability Laboratories Internal Chain of Custody

Pg _____ of _____

Sample ID	Parameter	Bottle Type	Perservative	Date/Time Removed	Relinquishing Custodian Initials	Receiving Analyst Initials	Date/Time Returned	Receiving Custodian Initials	Relinquishing Analyst Initials
9108-1	9 PCB	1-L	None	4/14/14 7:00			4/14/14 0730		
2									
3									
4									
5									
6									
7									
9108-8	9 PCB	1-L	None						

Methodology Review

Dehalococcoides sp in groundwater

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The standard curve is used to calculate the cells/ml in the test samples. Raw data is reported as a crossing threshold. Higher bacteria counts are asociated with lower crossing thresholds

Reporting Qualifiers

U- The compound was not detected at the indicated PQL concentration.

J- Approximate concentration of the compound. Detection of compound above calculated MDL but below the PQL of the analytical method. 99% confidence that the compound is present.

D- Diluted sample

B- The analyte was observed in laboratory blank as well as the sample - for EPA SW856 8260b and EPA 624 analysis

E- Compound detected above the linear range of the curve. Value given is an estimated value.

2.0 Sample Results

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
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Sample Information			
Lab ID	**9108-01**	**Date Sampled**	04/08/2014
Sample ID	**AP13-DO (51')**	**Time Sampled**	10:30
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	172.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	11	J	cells/ml	70	9	5.81	EISTLAW-ATL068
								crossing threshold=	31.1

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

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( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Sample Information			
Lab ID	**9108-02**	**Date Sampled**	04/08/2014
Sample ID	**AP23-DO (48')**	**Time Sampled**	9:00
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	211.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	9	J	cells/ml	57	8	4.74	EISTLAW-ATL068
								crossing threshold=	31.1

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Sample Information			
Lab ID	**9108-03**	**Date Sampled**	04/08/2014
Sample ID	**AP24-DO (47')**	**Time Sampled**	11:00
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	498.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	3	J	cells/ml	24	3	2.01	EISTLAW-ATL068
								crossing threshold=	31.4

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

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(D) Sample analyzed at indicated dilution
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Sample Information			
Lab ID	**9108-04**	**Date Sampled**	04/08/2014
Sample ID	**AP33-DO (36')**	**Time Sampled**	12:00
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	131.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	92	U	cells/ml	92	12	7.63	EISTLAW-ATL068
								crossing threshold=	none - not detected

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

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Sample Information			
Lab ID	**9108-05**	**Date Sampled**	04/08/2014
Sample ID	**AP34-DO (36')**	**Time Sampled**	12:45
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	141.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	85	U	cells/ml	85	11	7.09	EISTLAW-ATL068
								crossing threshold= >32 nondetect	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
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(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9108-06**	**Date Sampled**	04/08/2014
Sample ID	**AP35-DO (35')**	**Time Sampled**	13:30
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	130.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	92	U	cells/ml	92	12	7.69	EISTLAW-ATL068
								crossing threshold= >32 nondetect	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
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(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
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(E) Estimated value beyond linear range

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Sample Information			
Lab ID	**9108-07**	**Date Sampled**	04/08/2014
Sample ID	**MW-9 (20')**	**Time Sampled**	15:00
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	85.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	19	J	cells/ml	141	19	11.76	EISTLAW-ATL068
								crossing threshold=	31.3

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9108-08**	**Date Sampled**	04/08/2014
Sample ID	**OB15-S (18')**	**Time Sampled**	14:00
		Date Received	04/09/2014
		Date Filtered	04/14/2014
Matrix	***Aqueous***	**Amount Filtered (ml)**	80.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	04/22/2014	12:30	150	U	cells/ml	150	20	12.50	EISTLAW-ATL068
								crossing threshold=	none- non detect

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

3.0 QC Summary

Sample Batch:DHE

Lab ID	Analysis dates	QC batch
9108- 1	4/22/2014	042214-DHE
9108- 2	4/22/2014	042214-DHE
9108- 3	4/22/2014	042214-DHE
9108- 4	4/22/2014	042214-DHE
9108- 5	4/22/2014	042214-DHE
9108- 6	4/22/2014	042214-DHE
9108- 7	4/22/2014	042214-DHE
9108- 8	4/22/2014	042214-DHE

Calibration Summary: DHE

Calibration Standard :

	Calibration Date:	4/22/2014	12:30
Sample:	expected copy number	Crossing Threshold	copies observed
std 1	1.67E+08	7.6	112,000,000
std 2	1.67E+07	10.2	19,800,000
std 3	1.67E+06	13.1	2,870,000
std 4	1.67E+05	16.9	229,000
std6	1670	25.9	573
std8	16	30.6	25

curve = y=35.442-3.4597log(x)

r2=0.995

QC Method Blank Summary: DHE

QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
042214-DHE	4/22/2014	12:30	DHE	10	U	cells/ml	1.6

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 152780
Prepared By: Pernilla Haley
Date : 10/15/2014
Matrix: Air
Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15
Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : 2027489
Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
9/3/14	VOC TO-15		30 Days	9/15/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No

If no, list sample ID where range was exceeded: See notes

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 Yes

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
The % recovery was outside limits in the LCS or LCSD for several analytes in lab control samples. A J qualifier was added for methylene chloride in samples BLDG5-SVE Influent, BLDG5-SVE1, BLDG5-SVE2, BLDG5-SVE4 and trichloroflourmethane in BLDG5-SVE Influent other data was not impacted since the analytical results were non-detect.

Reviewed By: RJC

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September 25, 2014

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Revised Report - 9/25/2014 4:22:56 PM - See workorder comment section for explanation

Project Name:	**Varian Air Samples**	Workorder:	**2027489**
Purchase Order:	**915904**	Workorder ID:	**AER064|Varian - 152725**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, September 3, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Accounts Payable

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2027489 AER064|Varian - 152725

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2027489001	Bldg 5 - SVE Influent	Air	9/3/2014 11:15	9/3/2014 15:00	Collected by Client
2027489002	Bldg 5 - SVE 1	Air	9/3/2014 11:30	9/3/2014 15:00	Collected by Client
2027489003	Bldg 5 - SVE 2	Air	9/3/2014 12:00	9/3/2014 15:00	Collected by Client
2027489004	Bldg 5 - SVE 4	Air	9/3/2014 11:45	9/3/2014 15:00	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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PROJECT SUMMARY

Workorder: 2027489 AER064|Varian - 152725

Workorder Comments

This report was modified to include the following statement. The samples were analyzed for a site list of Volatile Organics by EPA Method TO-15. No changes were made to the results. JSL 9/25/14

Sample Comments

Lab ID: 2027489002 **Sample ID:** Bldg 5 - SVE 1 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489001** Date Collected: 9/3/2014 11:15 Matrix: Air

Sample ID: **Bldg 5 - SVE Influent** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP									
Acetone	13		ug/m3	0.5	TO-15		9/15/14 23:35	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		9/15/14 23:35	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Bromoform	ND		ug/m3	2	TO-15		9/15/14 23:35	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
2-Butanone	5		ug/m3	0.6	TO-15		9/15/14 23:35	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15		9/15/14 23:35	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		9/15/14 23:35	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		9/15/14 23:35	ECB	A
Chloroform	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15		9/15/14 23:35	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		9/15/14 23:35	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
cis-1,2-Dichloroethene	14		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
Freon 113	2		ug/m3	2	TO-15		9/15/14 23:35	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		9/15/14 23:35	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
Methylene Chloride	6	2	ug/m3	0.7	TO-15		9/15/14 23:35	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Tetrachloroethene	140		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Toluene	ND		ug/m3	0.8	TO-15		9/15/14 23:35	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489001** Date Collected: 9/3/2014 11:15 Matrix: Air

Sample ID: **Bldg 5 - SVE Influent** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Trichloroethene	390		ug/m3	11	TO-15		9/12/14 02:45	ECB	A
Trichlorofluoromethane	2	1	ug/m3	1	TO-15		9/15/14 23:35	ECB	A
Vinyl Acetate	ND		ug/m3	0.7	TO-15		9/15/14 23:35	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		9/15/14 23:35	ECB	A
o-Xylene	ND		ug/m3	0.9	TO-15		9/15/14 23:35	ECB	A
mp-Xylene	ND		ug/m3	2	TO-15		9/15/14 23:35	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15		9/15/14 23:35	ECB	A
4-Bromofluorobenzene (S)	105		%	70 - 130	TO-15		9/12/14 02:45	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489002** Date Collected: 9/3/2014 11:30 Matrix: Air

Sample ID: **Bldg 5 - SVE 1** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	73		ug/m3	5	TO-15		9/15/14 20:49	ECB	A
Benzene	ND		ug/m3	6	TO-15		9/15/14 20:49	ECB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		9/15/14 20:49	ECB	A
Bromoform	ND		ug/m3	21	TO-15		9/15/14 20:49	ECB	A
Bromomethane	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
2-Butanone	21		ug/m3	6	TO-15		9/15/14 20:49	ECB	A
Carbon Disulfide	ND		ug/m3	6	TO-15		9/15/14 20:49	ECB	A
Carbon Tetrachloride	ND		ug/m3	13	TO-15		9/15/14 20:49	ECB	A
Chlorobenzene	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
Chlorodibromomethane	ND		ug/m3	17	TO-15		9/15/14 20:49	ECB	A
Chloroethane	ND		ug/m3	5	TO-15		9/15/14 20:49	ECB	A
Chloroform	ND		ug/m3	10	TO-15		9/15/14 20:49	ECB	A
Chloromethane	ND		ug/m3	4	TO-15		9/15/14 20:49	ECB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		9/15/14 20:49	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	12	TO-15		9/15/14 20:49	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	12	TO-15		9/15/14 20:49	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	12	TO-15		9/15/14 20:49	ECB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
1,1-Dichloroethene	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
cis-1,2-Dichloroethene	300		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
Ethylbenzene	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
Freon 113	40		ug/m3	15	TO-15		9/15/14 20:49	ECB	A
2-Hexanone	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		9/15/14 20:49	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
Methylene Chloride	27	1	ug/m3	7	TO-15		9/15/14 20:49	ECB	A
Styrene	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	14	TO-15		9/15/14 20:49	ECB	A
Tetrachloroethene	3000		ug/m3	320	TO-15		9/16/14 23:38	ECB	A
Toluene	ND		ug/m3	8	TO-15		9/15/14 20:49	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	11	TO-15		9/15/14 20:49	ECB	A

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489002** Date Collected: 9/3/2014 11:30 Matrix: Air

Sample ID: **Bldg 5 - SVE 1** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,2-Trichloroethane	ND		ug/m3	11	TO-15		9/15/14 20:49	ECB	A
Trichloroethene	30000		ug/m3	250	TO-15		9/16/14 23:38	ECB	A
Trichlorofluoromethane	ND		ug/m3	11	TO-15		9/15/14 20:49	ECB	A
Vinyl Acetate	ND		ug/m3	7	TO-15		9/15/14 20:49	ECB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		9/15/14 20:49	ECB	A
o-Xylene	ND		ug/m3	9	TO-15		9/15/14 20:49	ECB	A
mp-Xylene	ND		ug/m3	17	TO-15		9/15/14 20:49	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15		9/16/14 23:38	ECB	A
4-Bromofluorobenzene (S)	113		%	70 - 130	TO-15		9/15/14 20:49	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489003** Date Collected: 9/3/2014 12:00 Matrix: Air

Sample ID: **Bldg 5 - SVE 2** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	15		ug/m3	0.5	TO-15		9/17/14 00:19	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		9/17/14 00:19	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Bromoform	ND		ug/m3	2	TO-15		9/17/14 00:19	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
2-Butanone	10		ug/m3	0.6	TO-15		9/17/14 00:19	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15		9/17/14 00:19	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		9/17/14 00:19	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		9/17/14 00:19	ECB	A
Chloroform	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15		9/17/14 00:19	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		9/17/14 00:19	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
cis-1,2-Dichloroethene	9		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
Freon 113	ND		ug/m3	2	TO-15		9/17/14 00:19	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		9/17/14 00:19	ECB	A
4-Methyl-2-Pentanone(MIBK)	2		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
Methylene Chloride	5	1	ug/m3	0.7	TO-15		9/17/14 00:19	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Tetrachloroethene	86		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Toluene	ND		ug/m3	0.8	TO-15		9/17/14 00:19	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489003** Date Collected: 9/3/2014 12:00 Matrix: Air

Sample ID: **Bldg 5 - SVE 2** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Trichloroethene	40		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Trichlorofluoromethane	2		ug/m3	1	TO-15		9/17/14 00:19	ECB	A
Vinyl Acetate	0.9		ug/m3	0.7	TO-15		9/17/14 00:19	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		9/17/14 00:19	ECB	A
o-Xylene	ND		ug/m3	0.9	TO-15		9/17/14 00:19	ECB	A
mp-Xylene	ND		ug/m3	2	TO-15		9/17/14 00:19	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	97		%	70 - 130	TO-15		9/17/14 00:19	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489004** Date Collected: 9/3/2014 11:45 Matrix: Air

Sample ID: **Bldg 5 - SVE 4** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	40		ug/m3	0.5	TO-15		9/17/14 03:00	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		9/17/14 03:00	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Bromoform	ND		ug/m3	2	TO-15		9/17/14 03:00	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
2-Butanone	16		ug/m3	0.6	TO-15		9/17/14 03:00	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15		9/17/14 03:00	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		9/17/14 03:00	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		9/17/14 03:00	ECB	A
Chloroform	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15		9/17/14 03:00	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		9/17/14 03:00	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
Freon 113	ND		ug/m3	2	TO-15		9/17/14 03:00	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		9/17/14 03:00	ECB	A
4-Methyl-2-Pentanone(MIBK)	2		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
Methylene Chloride	5	1	ug/m3	0.7	TO-15		9/17/14 03:00	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Tetrachloroethene	59		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Toluene	ND		ug/m3	0.8	TO-15		9/17/14 03:00	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A

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ANALYTICAL RESULTS

Workorder: 2027489 AER064|Varian - 152725

Lab ID: **2027489004** Date Collected: 9/3/2014 11:45 Matrix: Air

Sample ID: **Bldg 5 - SVE 4** Date Received: 9/3/2014 15:00

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Trichloroethene	7		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Trichlorofluoromethane	2		ug/m3	1	TO-15		9/17/14 03:00	ECB	A
Vinyl Acetate	ND		ug/m3	0.7	TO-15		9/17/14 03:00	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		9/17/14 03:00	ECB	A
o-Xylene	ND		ug/m3	0.9	TO-15		9/17/14 03:00	ECB	A
mp-Xylene	ND		ug/m3	2	TO-15		9/17/14 03:00	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	100		%	70 - 130	TO-15		9/17/14 03:00	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2027489001	1	Bldg 5 - SVE Influent	TO-15	Trichlorofluoromethane
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 148 and the control limits were 60 to 140.				
2027489001	2	Bldg 5 - SVE Influent	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 168 and the control limits were 60 to 140.				
2027489002	1	Bldg 5 - SVE 1	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 168 and the control limits were 60 to 140.				
2027489003	1	Bldg 5 - SVE 2	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 156 and the control limits were 60 to 140.				
2027489004	1	Bldg 5 - SVE 4	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 156 and the control limits were 60 to 140.				

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2027489

Requested Turnaround Time in Business Days from Receipt, please circle:
1 Day 2 Day 3 Day 4 Day 5 Day ~~10 Day-Standard~~

CAS Project #:

Company Name: CB+I

Project Name: Varian

CAS Contact:

Address: 100 Royall St

Project Number: 152725

Analysis Method and/or Analytes

City, State, Zip: Canton MA 02021

P.O. #/Billing Information: PO# 915904

Project Manager: Raymond Cadorette

Phone: 617 589 6102 Fax:

Email (for result reporting): Raymond.Cadorette@CBI.com

Sampler (Print & Sign): Paul Redmond

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID		TO-15				Comments Specific Instructions
Bldg 5 - SVE influent		9.3.14	1115				1				-4.5
Bldg 5 - SVE 1		9.3.14	1130				1				~~-2.0~~ -2.1
Bldg 5 - SVE 2		9.3.14	1200				1				-1.6
Bldg 5 - SVE 4		9.3.14	1145				1				-1.3

9/5/14

What State were samples collected in:

Project Requirements (MRLs, QAPP, etc.)
MADEP CAM QA/QC

Report Tier Levels - please select:
Tier I (Results/Default, if not specified) ___ Tier III (CLP Forms Only) ___
Tier II (Results + QC) ___ Tier IV (Data Validation) ___

EDD required: YES / NO
Type: _____ EDD Units: _____

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Paul Redmond	9.3.14	1500			
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental Project #: 152725

Project Location: Varian RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2027489-001 to -004

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air X Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC X CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Jennifer M. Stanhope Lamoreux **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 09/24/2014

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State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder 2027489 **Project Name** Varian - 152725

QC Batch TO15 / 2562

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2027489001

2070287

Parameter	Original Result	Qualifiers	Units	Spike Conc.
Trichloroethene		U	ug/m3	
Surrogate Recoveries				
4-Bromofluorobenzene				

METHOD BLANK 2070285

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
Trichloroethene	ND	U	ug/m3	1		
Surrogate Recoveries						
4-Bromofluorobenzene			%		100	70-130

LABORATORY CONTROL SAMPLE 2070286

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
Trichloroethene	1		ug/m3	1	119	60-140
Surrogate Recoveries						
4-Bromofluorobenzene			%		106	70-130

Workorder	**2027489**	**Project Name**	**Varian - 152725**
QC Batch	TO15 / 2563		
QC Batch Method	TO-15	**Analysis Method**	TO-15
Associated Lab Samples	2027489001 2027489002		

2071831

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ug/m3	
1,2-Dibromoethane		U	ug/m3	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichloroethane		U	ug/m3	
1,2-Dichloropropane		U	ug/m3	
1,3-Dichlorobenzene		U	ug/m3	
1,4-Dichlorobenzene		U	ug/m3	
2-Butanone		U	ug/m3	
2-Hexanone		U	ug/m3	
4-Methyl-2-Pentanone(MIBK)		U	ug/m3	
Acetone		U	ug/m3	
Benzene		U	ug/m3	
Bromodichloromethane		U	ug/m3	
Bromoform		U	ug/m3	
Bromomethane		U	ug/m3	
Carbon Disulfide		U	ug/m3	
Carbon Tetrachloride		U	ug/m3	
Chlorobenzene		U	ug/m3	
Chlorodibromomethane		U	ug/m3	
Chloroethane		U	ug/m3	
Chloroform		U	ug/m3	
Chloromethane		U	ug/m3	
cis-1,2-Dichloroethene		U	ug/m3	
cis-1,3-Dichloropropene		U	ug/m3	
Ethylbenzene		U	ug/m3	
Freon 113		U	ug/m3	
Methyl t-Butyl Ether		U	ug/m3	
Methylene Chloride		U	ug/m3	
mp-Xylene		U	ug/m3	
o-Xylene		U	ug/m3	

This is an addendum to the Certificate of Analysis.

Styrene		U	ug/m3
Tetrachloroethene		U	ug/m3
Toluene		U	ug/m3
trans-1,2-Dichloroethene		U	ug/m3
trans-1,3-Dichloropropene		U	ug/m3
Trichloroethene		U	ug/m3
Trichlorofluoromethane		U	ug/m3
Vinyl Acetate		U	ug/m3
Vinyl Chloride		U	ug/m3
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2071829

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,3-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ug/m3	1		
2-Butanone	ND	U	ug/m3	0.6		
2-Hexanone	ND	U	ug/m3	0.8		
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8		
Acetone	ND	U	ug/m3	0.5		
Benzene	ND	U	ug/m3	0.6		
Bromodichloromethane	ND	U	ug/m3	1		
Bromoform	ND	U	ug/m3	2		
Bromomethane	ND	U	ug/m3	0.8		
Carbon Disulfide	ND	U	ug/m3	0.6		
Carbon Tetrachloride	ND	U	ug/m3	1		
Chlorobenzene	ND	U	ug/m3	0.9		
Chlorodibromomethane	ND	U	ug/m3	2		
Chloroethane	ND	U	ug/m3	0.5		
Chloroform	ND	U	ug/m3	1		
Chloromethane	ND	U	ug/m3	0.4		
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8		

This is an addendum to the Certificate of Analysis.

cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Freon 113	ND	U	ug/m3	2
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ug/m3	0.7
mp-Xylene	ND	U	ug/m3	2
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ug/m3	0.8
Tetrachloroethene	ND	U	ug/m3	1
Toluene	ND	U	ug/m3	0.8
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9
Trichloroethene	ND	U	ug/m3	1
Trichlorofluoromethane	ND	U	ug/m3	1
Vinyl Acetate	ND	U	ug/m3	0.7
Vinyl Chloride	ND	U	ug/m3	0.5
Surrogate Recoveries				
4-Bromofluorobenzene			%	100 70-130

LABORATORY CONTROL SAMPLE 2071830

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	131	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	150*	60-140
1,1,2-Trichloroethane	1		ug/m3	1	135	60-140
1,1-Dichloroethane	1		ug/m3	0.8	139	60-140
1,1-Dichloroethene	1		ug/m3	0.8	124	60-140
1,2-Dibromoethane	2		ug/m3	2	128	60-140
1,2-Dichlorobenzene	2		ug/m3	1	158*	60-140
1,2-Dichloroethane	1		ug/m3	0.8	137	60-140
1,2-Dichloropropane	1		ug/m3	0.9	136	60-140
1,3-Dichlorobenzene	2		ug/m3	1	153*	60-140
1,4-Dichlorobenzene	2		ug/m3	1	154*	60-140
2-Butanone	0.7		ug/m3	0.6	123	60-140
2-Hexanone	1		ug/m3	0.8	119	60-140
4-Methyl-2-Pentanone(MIBK)	1		ug/m3	0.8	120	60-140
Acetone	0.6		ug/m3	0.5	122	60-140
Benzene	0.9		ug/m3	0.6	136	60-140
Bromodichloromethane	2		ug/m3	1	136	60-140
Bromoform	3		ug/m3	2	126	60-140
Bromomethane	1		ug/m3	0.8	147*	60-140
Carbon Disulfide	0.9		ug/m3	0.6	144*	60-140

Carbon Tetrachloride	2	ug/m3	1	145*	60-140
Chlorobenzene	1	ug/m3	0.9	137	60-140
Chlorodibromomethane	2	ug/m3	2	131	60-140
Chloroethane	0.7	ug/m3	0.5	132	60-140
Chloroform	1	ug/m3	1	140	60-140
Chloromethane	0.6	ug/m3	0.4	150*	60-140
cis-1,2-Dichloroethene	1	ug/m3	0.8	125	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	121	60-140
Ethylbenzene	1	ug/m3	0.9	123	60-140
Freon 113	2	ug/m3	2	137	60-140
Methyl t-Butyl Ether	0.8	ug/m3	0.7	115	60-140
Methylene Chloride	1	ug/m3	0.7	168*	60-140
mp-Xylene	2	ug/m3	2	125	60-140
o-Xylene	1	ug/m3	0.9	124	60-140
Styrene	1	ug/m3	0.9	117	60-140
Tetrachloroethene	2	ug/m3	1	126	60-140
Toluene	0.9	ug/m3	0.8	123	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	125	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	117	60-140
Trichloroethene	1	ug/m3	1	123	60-140
Trichlorofluoromethane	2	ug/m3	1	148*	60-140
Vinyl Acetate	0.9	ug/m3	0.7	123	60-140
Vinyl Chloride	0.8	ug/m3	0.5	149*	60-140
Surrogate Recoveries					
4-Bromofluorobenzene	-	%		103	70-130

QC Batch TO15 / 2564

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2027489002 2027489003 2027489004

METHOD BLANK 2072447

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichloroethane	ND	U	ug/m3	0.8		

This is an addendum to the Certificate of Analysis.

1,2-Dichloropropane	ND	U	ug/m3	0.9
1,3-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ug/m3	1
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ug/m3	2
Bromomethane	ND	U	ug/m3	0.8
Carbon Disulfide	ND	U	ug/m3	0.6
Carbon Tetrachloride	ND	U	ug/m3	1
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ug/m3	2
Chloroethane	ND	U	ug/m3	0.5
Chloroform	ND	U	ug/m3	1
Chloromethane	ND	U	ug/m3	0.4
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Freon 113	ND	U	ug/m3	2
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ug/m3	0.7
mp-Xylene	ND	U	ug/m3	2
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ug/m3	0.8
Tetrachloroethene	ND	U	ug/m3	1
Toluene	ND	U	ug/m3	0.8
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9
Trichloroethene	ND	U	ug/m3	1
Trichlorofluoromethane	ND	U	ug/m3	1
Vinyl Acetate	ND	U	ug/m3	0.7
Vinyl Chloride	ND	U	ug/m3	0.5
Surrogate Recoveries				
4-Bromofluorobenzene			%	98 70-130

LABORATORY CONTROL SAMPLE 2072448

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	113	60-140

1,1,2,2-Tetrachloroethane	2	ug/m3	1	118	60-140
1,1,2-Trichloroethane	1	ug/m3	1	117	60-140
1,1-Dichloroethane	1	ug/m3	0.8	124	60-140
1,1-Dichloroethene	0.8	ug/m3	0.8	106	60-140
1,2-Dibromoethane	2	ug/m3	2	110	60-140
1,2-Dichlorobenzene	1	ug/m3	1	120	60-140
1,2-Dichloroethane	0.9	ug/m3	0.8	116	60-140
1,2-Dichloropropane	1	ug/m3	0.9	119	60-140
1,3-Dichlorobenzene	1	ug/m3	1	115	60-140
1,4-Dichlorobenzene	1	ug/m3	1	114	60-140
2-Butanone	0.7	ug/m3	0.6	114	60-140
2-Hexanone	0.8	ug/m3	0.8	98	60-140
4-Methyl-2-Pentanone(MIBK)	0.8	ug/m3	0.8	93	60-140
Acetone	0.4	ug/m3	0.5	94	60-140
Benzene	0.7	ug/m3	0.6	117	60-140
Bromodichloromethane	2	ug/m3	1	113	60-140
Bromoform	2	ug/m3	2	110	60-140
Bromomethane	0.9	ug/m3	0.8	117	60-140
Carbon Disulfide	0.7	ug/m3	0.6	119	60-140
Carbon Tetrachloride	1	ug/m3	1	112	60-140
Chlorobenzene	1	ug/m3	0.9	122	60-140
Chlorodibromomethane	2	ug/m3	2	113	60-140
Chloroethane	0.5	ug/m3	0.5	97	60-140
Chloroform	1	ug/m3	1	119	60-140
Chloromethane	0.5	ug/m3	0.4	114	60-140
cis-1,2-Dichloroethene	0.9	ug/m3	0.8	117	60-140
cis-1,3-Dichloropropene	0.9	ug/m3	0.9	102	60-140
Ethylbenzene	1	ug/m3	0.9	111	60-140
Freon 113	2	ug/m3	2	113	60-140
Methyl t-Butyl Ether	0.8	ug/m3	0.7	110	60-140
Methylene Chloride	1	ug/m3	0.7	156*	60-140
mp-Xylene	2	ug/m3	2	107	60-140
o-Xylene	0.9	ug/m3	0.9	109	60-140
Styrene	0.9	ug/m3	0.9	101	60-140
Tetrachloroethene	1	ug/m3	1	105	60-140
Toluene	0.8	ug/m3	0.8	110	60-140
trans-1,2-Dichloroethene	0.9	ug/m3	0.8	111	60-140
trans-1,3-Dichloropropene	0.9	ug/m3	0.9	102	60-140
Trichloroethene	1	ug/m3	1	104	60-140
Trichlorofluoromethane	1	ug/m3	1	116	60-140
Vinyl Acetate	0.8	ug/m3	0.7	110	60-140
Vinyl Chloride	0.6	ug/m3	0.5	115	60-140

This is an addendum to the Certificate of Analysis.

Surrogate Recoveries				
4-Bromofluorobenzene		%	100	70-130

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2027489001	Bldg 5 - SVE Influent	TO-15	TO15 / 2562	TO-15	TO15 / 2562
2027489001	Bldg 5 - SVE Influent	TO-15	TO15 / 2563	TO-15	TO15 / 2563
2027489002	Bldg 5 - SVE 1	TO-15	TO15 / 2563	TO-15	TO15 / 2563
2027489002	Bldg 5 - SVE 1	TO-15	TO15 / 2564	TO-15	TO15 / 2564
2027489003	Bldg 5 - SVE 2	TO-15	TO15 / 2564	TO-15	TO15 / 2564
2027489004	Bldg 5 - SVE 4	TO-15	TO15 / 2564	TO-15	TO15 / 2564

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 152780
Prepared By: Pernilla Haley
Date : 10/15/2014
Matrix: Air
Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15
Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : 2031370
Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
9/24/14	VOC TO-15		30 Days	10/2/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded:

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 Yes

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
The % recovery was outside limits in the LCS or LCSD for methylene chloride and acetone in lab control samples. A J qualifier was added for acetone in samples BLDG5-SV4 and BLDG5-6 and methylene chloride in BLDG5-1, BLDG5-2, and BLDG5-SV4
other data was not impacted since the analytical results were non-detect.

Reviewed By: RJC

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 24, 2014

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Revised Report - 10/24/2014 12:11:18 PM - See workorder comment section for explanation

Project Name:	**Varian Air Samples**	Workorder:	**2031370**
Purchase Order:	**915904**	Workorder ID:	**CVC001|Varian/152728**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Friday, September 26, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Cathy Mainville

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2031370 CVC001|Varian/152728

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2031370001	Bldg 5-1	Air	9/24/2014 16:13	9/26/2014 09:30	Collected by Client
2031370002	Bldg 5-2	Air	9/24/2014 16:21	9/26/2014 09:30	Collected by Client
2031370003	Bldg 5-3	Air	9/24/2014 12:50	9/26/2014 09:30	Collected by Client
2031370004	Bldg 5-6	Air	9/24/2014 16:11	9/26/2014 09:30	Collected by Client
2031370005	Bldg 5-SV2	Air	9/24/2014 13:57	9/26/2014 09:30	Collected by Client
2031370006	Bldg 5-SV3	Air	9/24/2014 13:56	9/26/2014 09:30	Collected by Client
2031370007	Bldg 5-SV4	Air	9/24/2014 13:56	9/26/2014 09:30	Collected by Client
2031370008	Bldg 5-SV5	Air	9/24/2014 14:08	9/26/2014 09:30	Collected by Client
2031370009	Bldg 5-SV6	Air	9/24/2014 13:57	9/26/2014 09:30	Collected by Client

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SAMPLE SUMMARY

Workorder: 2031370 CVC001|Varian/152728

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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PROJECT SUMMARY

Workorder: 2031370 CVC001|Varian/152728

Workorder Comments

These reports were modified on 10/13/14 to change the analyte list. VLF

This report was modified on 10/24/14 to add the QA/QC reports. BWK

Sample Comments

Lab ID: 2031370009 **Sample ID:** Bldg 5-SV6 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370001** Date Collected: 9/24/2014 16:13 Matrix: Air

Sample ID: **Bldg 5-1** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	310		ug/m3	5	TO-15		10/2/14 05:55	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/2/14 18:18	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/2/14 18:18	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
2-Butanone	340		ug/m3	6	TO-15		10/2/14 05:55	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/2/14 18:18	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/2/14 18:18	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
cis-1,2-Dichloroethene	1		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/2/14 18:18	ECB	A
Ethylbenzene	2		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/2/14 18:18	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/2/14 18:18	ECB	A
4-Methyl-2-Pentanone(MIBK)	100		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
Methylene Chloride	28	8	ug/m3	0.7	TO-15		10/2/14 18:18	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Tetrachloroethene	8		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Toluene	2		ug/m3	0.8	TO-15		10/2/14 18:18	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/2/14 18:18	ECB	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370001** Date Collected: 9/24/2014 16:13 Matrix: Air

Sample ID: **Bldg 5-1** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	9		ug/m3	1	TO-15		10/2/14 18:18	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/2/14 18:18	ECB	A
o-Xylene	2		ug/m3	0.9	TO-15		10/2/14 18:18	ECB	A
mp-Xylene	8		ug/m3	2	TO-15		10/2/14 18:18	ECB	A
Acetone	130		ppbv	2.0	TO-15		10/2/14 05:55	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
2-Butanone	120		ppbv	2.0	TO-15		10/2/14 05:55	ECB	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
cis-1,2-Dichloroethene	0.26		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Ethylbenzene	0.42		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
4-Methyl-2-Pentanone(MIBK)	25		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Methylene Chloride	7.9	7	ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Tetrachloroethene	1.2		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A
Toluene	0.53		ppbv	0.20	TO-15		10/2/14 18:18	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370001** Date Collected: 9/24/2014 16:13 Matrix: Air

Sample ID: **Bldg 5-1** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/2/14 18:18	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/2/14 18:18	ECB	A
Trichloroethene	1.7		ppbv	0.20	TO-15			10/2/14 18:18	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/2/14 18:18	ECB	A
o-Xylene	0.53		ppbv	0.20	TO-15			10/2/14 18:18	ECB	A
mp-Xylene	1.8		ppbv	0.40	TO-15			10/2/14 18:18	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	103		%	70 - 130	TO-15			10/2/14 05:55	ECB	A
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15			10/2/14 18:18	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370002** Date Collected: 9/24/2014 16:21 Matrix: Air

Sample ID: **Bldg 5-2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	110		ug/m3	5	TO-15		10/2/14 06:35	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/2/14 19:00	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/2/14 19:00	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
2-Butanone	220		ug/m3	6	TO-15		10/2/14 06:35	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/2/14 19:00	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/2/14 19:00	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
cis-1,2-Dichloroethene	0.9		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/2/14 19:00	ECB	A
Ethylbenzene	1		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/2/14 19:00	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/2/14 19:00	ECB	A
4-Methyl-2-Pentanone(MIBK)	68		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
Methylene Chloride	6	6	ug/m3	0.7	TO-15		10/2/14 19:00	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Tetrachloroethene	5		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Toluene	2		ug/m3	0.8	TO-15		10/2/14 19:00	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/2/14 19:00	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370002** Date Collected: 9/24/2014 16:21 Matrix: Air

Sample ID: **Bldg 5-2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	6		ug/m3	1	TO-15		10/2/14 19:00	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/2/14 19:00	ECB	A
o-Xylene	1		ug/m3	0.9	TO-15		10/2/14 19:00	ECB	A
mp-Xylene	5		ug/m3	2	TO-15		10/2/14 19:00	ECB	A
Acetone	46		ppbv	2.0	TO-15		10/2/14 06:35	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
2-Butanone	75		ppbv	2.0	TO-15		10/2/14 06:35	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
cis-1,2-Dichloroethene	0.23		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Ethylbenzene	0.28		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
4-Methyl-2-Pentanone(MIBK)	17		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Methylene Chloride	1.6	5	ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Tetrachloroethene	0.80		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A
Toluene	0.58		ppbv	0.20	TO-15		10/2/14 19:00	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370002** Date Collected: 9/24/2014 16:21 Matrix: Air

Sample ID: **Bldg 5-2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/2/14 19:00	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/2/14 19:00	ECB	A
Trichloroethene	1.1		ppbv	0.20	TO-15			10/2/14 19:00	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/2/14 19:00	ECB	A
o-Xylene	0.33		ppbv	0.20	TO-15			10/2/14 19:00	ECB	A
mp-Xylene	1.1		ppbv	0.40	TO-15			10/2/14 19:00	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15			10/2/14 19:00	ECB	A
4-Bromofluorobenzene (S)	107		%	70 - 130	TO-15			10/2/14 06:35	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370003** Date Collected: 9/24/2014 12:50 Matrix: Air

Sample ID: **Bldg 5-3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	570		ug/m3	5	TO-15		10/2/14 13:26	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/6/14 19:22	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/6/14 19:22	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
2-Butanone	18		ug/m3	0.6	TO-15		10/6/14 19:22	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/6/14 19:22	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/6/14 19:22	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/6/14 19:22	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/6/14 19:22	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/6/14 19:22	ECB	A
4-Methyl-2-Pentanone(MIBK)	5		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
Methylene Chloride	57		ug/m3	0.7	TO-15		10/6/14 19:22	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Toluene	2		ug/m3	0.8	TO-15		10/6/14 19:22	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370003** Date Collected: 9/24/2014 12:50 Matrix: Air

Sample ID: **Bldg 5-3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	ND		ug/m3	1	TO-15		10/6/14 19:22	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/6/14 19:22	ECB	A
o-Xylene	ND		ug/m3	0.9	TO-15		10/6/14 19:22	ECB	A
mp-Xylene	2		ug/m3	2	TO-15		10/6/14 19:22	ECB	A
Acetone	240		ppbv	2.0	TO-15		10/2/14 13:26	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
2-Butanone	6.1		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Ethylbenzene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
4-Methyl-2-Pentanone(MIBK)	1.1		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Methylene Chloride	17		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A
Toluene	0.65		ppbv	0.20	TO-15		10/6/14 19:22	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370003** Date Collected: 9/24/2014 12:50 Matrix: Air

Sample ID: **Bldg 5-3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/6/14 19:22	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/6/14 19:22	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			10/6/14 19:22	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/6/14 19:22	ECB	A
o-Xylene	ND		ppbv	0.20	TO-15			10/6/14 19:22	ECB	A
mp-Xylene	0.47		ppbv	0.40	TO-15			10/6/14 19:22	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			10/6/14 19:22	ECB	A
4-Bromofluorobenzene (S)	107		%	70 - 130	TO-15			10/2/14 13:26	ECB	A

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370004** Date Collected: 9/24/2014 16:11 Matrix: Air

Sample ID: **Bldg 5-6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	620		ug/m3	5	TO-15		10/2/14 17:38	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/6/14 23:24	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/6/14 23:24	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
2-Butanone	14		ug/m3	0.6	TO-15		10/6/14 23:24	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/6/14 23:24	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/6/14 23:24	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/6/14 23:24	ECB	A
Ethylbenzene	1		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/6/14 23:24	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/6/14 23:24	ECB	A
4-Methyl-2-Pentanone(MIBK)	2		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		10/6/14 23:24	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Toluene	4		ug/m3	0.8	TO-15		10/6/14 23:24	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370004** Date Collected: 9/24/2014 16:11 Matrix: Air

Sample ID: **Bldg 5-6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	ND		ug/m3	1	TO-15		10/6/14 23:24	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/6/14 23:24	ECB	A
o-Xylene	0.9		ug/m3	0.9	TO-15		10/6/14 23:24	ECB	A
mp-Xylene	4		ug/m3	2	TO-15		10/6/14 23:24	ECB	A
Acetone	260		ppbv	2.0	TO-15		10/2/14 17:38	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
2-Butanone	4.8		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Ethylbenzene	0.24		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
4-Methyl-2-Pentanone(MIBK)	0.57		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Methylene Chloride	1.3		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A
Toluene	0.95		ppbv	0.20	TO-15		10/6/14 23:24	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370004** Date Collected: 9/24/2014 16:11 Matrix: Air

Sample ID: **Bldg 5-6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/6/14 23:24	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/6/14 23:24	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			10/6/14 23:24	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/6/14 23:24	ECB	A
o-Xylene	0.20		ppbv	0.20	TO-15			10/6/14 23:24	ECB	A
mp-Xylene	0.97		ppbv	0.40	TO-15			10/6/14 23:24	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15			10/6/14 23:24	ECB	A
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15			10/2/14 17:38	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370005** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	190		ug/m3	5	TO-15		10/2/14 19:42	ECB	A
Benzene	1		ug/m3	0.6	TO-15		10/7/14 01:25	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/7/14 01:25	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
2-Butanone	230		ug/m3	6	TO-15		10/2/14 19:42	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/7/14 01:25	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/7/14 01:25	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
1,3-Dichlorobenzene	6		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/7/14 01:25	ECB	A
Ethylbenzene	10		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/7/14 01:25	ECB	A
2-Hexanone	3		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/7/14 01:25	ECB	A
4-Methyl-2-Pentanone(MIBK)	62		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		10/7/14 01:25	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Tetrachloroethene	4		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Toluene	27		ug/m3	0.8	TO-15		10/7/14 01:25	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 01:25	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370005** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	13		ug/m3	1	TO-15		10/7/14 01:25	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/7/14 01:25	ECB	A
o-Xylene	15		ug/m3	0.9	TO-15		10/7/14 01:25	ECB	A
mp-Xylene	39		ug/m3	2	TO-15		10/7/14 01:25	ECB	A
Acetone	82		ppbv	2.0	TO-15		10/2/14 19:42	ECB	A
Benzene	0.39		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
2-Butanone	79		ppbv	2.0	TO-15		10/2/14 19:42	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,3-Dichlorobenzene	0.96		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Ethylbenzene	2.3		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
2-Hexanone	0.77		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
4-Methyl-2-Pentanone(MIBK)	15		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Methylene Chloride	1.6		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Tetrachloroethene	0.53		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Toluene	7.1		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370005** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV2** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Trichloroethene	2.5		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
o-Xylene	3.4		ppbv	0.20	TO-15		10/7/14 01:25	ECB	A
mp-Xylene	9.0		ppbv	0.40	TO-15		10/7/14 01:25	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15		10/7/14 01:25	ECB	A
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15		10/2/14 19:42	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370006** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	300		ug/m3	5	TO-15		10/2/14 20:22	ECB	A
Benzene	2		ug/m3	0.6	TO-15		10/7/14 02:06	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/7/14 02:06	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
2-Butanone	46		ug/m3	0.6	TO-15		10/7/14 02:06	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/7/14 02:06	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/7/14 02:06	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
1,3-Dichlorobenzene	13		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/7/14 02:06	ECB	A
Ethylbenzene	10		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/7/14 02:06	ECB	A
2-Hexanone	5		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/7/14 02:06	ECB	A
4-Methyl-2-Pentanone(MIBK)	6		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		10/7/14 02:06	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
Tetrachloroethene	36		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
Toluene	29		ug/m3	0.8	TO-15		10/7/14 02:06	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 02:06	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370006** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	220		ug/m3	11	TO-15		10/2/14 20:22	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/7/14 02:06	ECB	A
o-Xylene	15		ug/m3	0.9	TO-15		10/7/14 02:06	ECB	A
mp-Xylene	38		ug/m3	2	TO-15		10/7/14 02:06	ECB	A
Acetone	130		ppbv	2.0	TO-15		10/2/14 20:22	ECB	A
Benzene	0.58		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
2-Butanone	16		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,3-Dichlorobenzene	2.2		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Ethylbenzene	2.3		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
2-Hexanone	1.2		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
4-Methyl-2-Pentanone(MIBK)	1.4		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Methylene Chloride	1.5		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Tetrachloroethene	5.3		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Toluene	7.8		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370006** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV3** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
Trichloroethene	41		ppbv	2.0	TO-15		10/2/14 20:22	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
o-Xylene	3.5		ppbv	0.20	TO-15		10/7/14 02:06	ECB	A
mp-Xylene	8.7		ppbv	0.40	TO-15		10/7/14 02:06	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	108		%	70 - 130	TO-15		10/2/14 20:22	ECB	A
4-Bromofluorobenzene (S)	102		%	70 - 130	TO-15		10/7/14 02:06	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370007** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV4** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	52	4	ug/m3	0.5	TO-15		10/7/14 03:27	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/7/14 03:27	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/7/14 03:27	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
2-Butanone	17		ug/m3	0.6	TO-15		10/7/14 03:27	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/7/14 03:27	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/7/14 03:27	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
1,3-Dichlorobenzene	2		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/7/14 03:27	ECB	A
Ethylbenzene	3		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/7/14 03:27	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
Methyl t-Butyl Ether	6		ug/m3	0.7	TO-15		10/7/14 03:27	ECB	A
4-Methyl-2-Pentanone(MIBK)	2		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
Methylene Chloride	350	2	ug/m3	7	TO-15		10/2/14 21:42	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Toluene	9		ug/m3	0.8	TO-15		10/7/14 03:27	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 03:27	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370007** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV4** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	7		ug/m3	1	TO-15		10/7/14 03:27	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/7/14 03:27	ECB	A
o-Xylene	4		ug/m3	0.9	TO-15		10/7/14 03:27	ECB	A
mp-Xylene	11		ug/m3	2	TO-15		10/7/14 03:27	ECB	A
Acetone	22	3	ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
2-Butanone	5.8		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,3-Dichlorobenzene	0.41		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Ethylbenzene	0.66		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Methyl t-Butyl Ether	1.7		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
4-Methyl-2-Pentanone(MIBK)	0.50		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Methylene Chloride	100	1	ppbv	2.0	TO-15		10/2/14 21:42	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Toluene	2.4		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370007** Date Collected: 9/24/2014 13:56 Matrix: Air

Sample ID: **Bldg 5-SV4** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Trichloroethene	1.4		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
o-Xylene	0.93		ppbv	0.20	TO-15		10/7/14 03:27	ECB	A
mp-Xylene	2.5		ppbv	0.40	TO-15		10/7/14 03:27	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15		10/2/14 21:42	ECB	A
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15		10/7/14 03:27	ECB	A

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370008** Date Collected: 9/24/2014 14:08 Matrix: Air

Sample ID: **Bldg 5-SV5** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	140		ug/m3	5	TO-15		10/2/14 22:22	ECB	A
Benzene	2		ug/m3	0.6	TO-15		10/7/14 04:08	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/7/14 04:08	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
2-Butanone	150		ug/m3	6	TO-15		10/2/14 22:22	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/7/14 04:08	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/7/14 04:08	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
1,3-Dichlorobenzene	5		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/7/14 04:08	ECB	A
Ethylbenzene	7		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/7/14 04:08	ECB	A
2-Hexanone	3		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/7/14 04:08	ECB	A
4-Methyl-2-Pentanone(MIBK)	46		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
Methylene Chloride	3		ug/m3	0.7	TO-15		10/7/14 04:08	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Tetrachloroethene	11		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Toluene	23		ug/m3	0.8	TO-15		10/7/14 04:08	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/7/14 04:08	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370008** Date Collected: 9/24/2014 14:08 Matrix: Air

Sample ID: **Bldg 5-SV5** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	4		ug/m3	1	TO-15		10/7/14 04:08	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/7/14 04:08	ECB	A
o-Xylene	10		ug/m3	0.9	TO-15		10/7/14 04:08	ECB	A
mp-Xylene	25		ug/m3	2	TO-15		10/7/14 04:08	ECB	A
Acetone	57		ppbv	2.0	TO-15		10/2/14 22:22	ECB	A
Benzene	0.52		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
2-Butanone	49		ppbv	2.0	TO-15		10/2/14 22:22	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,3-Dichlorobenzene	0.85		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Ethylbenzene	1.5		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
2-Hexanone	0.71		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
4-Methyl-2-Pentanone(MIBK)	11		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Methylene Chloride	0.74		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Tetrachloroethene	1.6		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A
Toluene	6.1		ppbv	0.20	TO-15		10/7/14 04:08	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370008** Date Collected: 9/24/2014 14:08 Matrix: Air

Sample ID: **Bldg 5-SV5** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/7/14 04:08	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/7/14 04:08	ECB	A
Trichloroethene	0.75		ppbv	0.20	TO-15			10/7/14 04:08	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/7/14 04:08	ECB	A
o-Xylene	2.2		ppbv	0.20	TO-15			10/7/14 04:08	ECB	A
mp-Xylene	5.7		ppbv	0.40	TO-15			10/7/14 04:08	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	108		%	70 - 130	TO-15			10/2/14 22:22	ECB	A
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15			10/7/14 04:08	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370009** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	68	2	ug/m3	5	TO-15		10/6/14 20:45	ECB	A
Benzene	ND		ug/m3	6	TO-15		10/6/14 20:45	ECB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		10/6/14 20:45	ECB	A
Bromoform	ND		ug/m3	21	TO-15		10/6/14 20:45	ECB	A
Bromomethane	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
2-Butanone	30		ug/m3	6	TO-15		10/6/14 20:45	ECB	A
Carbon Tetrachloride	ND		ug/m3	13	TO-15		10/6/14 20:45	ECB	A
Chlorobenzene	ND		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
Chlorodibromomethane	ND		ug/m3	17	TO-15		10/6/14 20:45	ECB	A
Chloroform	ND		ug/m3	10	TO-15		10/6/14 20:45	ECB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		10/6/14 20:45	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	12	TO-15		10/6/14 20:45	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	12	TO-15		10/6/14 20:45	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	12	TO-15		10/6/14 20:45	ECB	A
1,1-Dichloroethane	1800		ug/m3	16	TO-15		10/7/14 22:12	ECB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
1,1-Dichloroethene	350		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
cis-1,2-Dichloroethene	590		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
1,4-Dioxane	96		ug/m3	7	TO-15		10/6/14 20:45	ECB	A
Ethylbenzene	ND		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
Hexachlorobutadiene	ND		ug/m3	21	TO-15		10/6/14 20:45	ECB	A
2-Hexanone	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		10/6/14 20:45	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
Methylene Chloride	8		ug/m3	7	TO-15		10/6/14 20:45	ECB	A
Naphthalene	ND		ug/m3	10	TO-15		10/6/14 20:45	ECB	A
Styrene	ND		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	14	TO-15		10/6/14 20:45	ECB	A
Tetrachloroethene	97		ug/m3	14	TO-15		10/6/14 20:45	ECB	A
Toluene	19		ug/m3	8	TO-15		10/6/14 20:45	ECB	A
1,1,1-Trichloroethane	490		ug/m3	11	TO-15		10/6/14 20:45	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	11	TO-15		10/6/14 20:45	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370009** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	390		ug/m3	11	TO-15		10/6/14 20:45	ECB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		10/6/14 20:45	ECB	A
o-Xylene	9		ug/m3	9	TO-15		10/6/14 20:45	ECB	A
mp-Xylene	23		ug/m3	17	TO-15		10/6/14 20:45	ECB	A
Acetone	29	1	ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Benzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Bromodichloromethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Bromoform	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Bromomethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
2-Butanone	10		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Carbon Tetrachloride	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Chlorobenzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Chlorodibromomethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Chloroform	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,2-Dibromoethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,2-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,3-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,4-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,1-Dichloroethane	450		ppbv	4.0	TO-15		10/7/14 22:12	ECB	A
1,2-Dichloroethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,1-Dichloroethene	88		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
cis-1,2-Dichloroethene	150		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,2-Dichloropropane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,4-Dioxane	27		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Ethylbenzene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Hexachlorobutadiene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
2-Hexanone	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Methyl t-Butyl Ether	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Methylene Chloride	2.4		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Naphthalene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Styrene	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Tetrachloroethene	14		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Toluene	5.1		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2031370 CVC001|Varian/152728

Lab ID: **2031370009** Date Collected: 9/24/2014 13:57 Matrix: Air

Sample ID: **Bldg 5-SV6** Date Received: 9/26/2014 09:30

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,1,1-Trichloroethane	89		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
1,1,2-Trichloroethane	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Trichloroethene	73		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
Vinyl Chloride	ND		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
o-Xylene	2.1		ppbv	2.0	TO-15		10/6/14 20:45	ECB	A
mp-Xylene	5.4		ppbv	4.0	TO-15		10/6/14 20:45	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	103		%	70 - 130	TO-15		10/6/14 20:45	ECB	A
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15		10/7/14 22:12	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2031370001	7	Bldg 5-1	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370001	8	Bldg 5-1	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370002	5	Bldg 5-2	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370002	6	Bldg 5-2	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370007	1	Bldg 5-SV4	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370007	2	Bldg 5-SV4	TO-15	Methylene Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 60 to 140.				
2031370007	3	Bldg 5-SV4	TO-15	Acetone
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.				
2031370007	4	Bldg 5-SV4	TO-15	Acetone
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.				
2031370009	1	Bldg 5-SV6	TO-15	Acetone
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.				
2031370009	2	Bldg 5-SV6	TO-15	Acetone
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.				

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AIR ANALYSIS
CHAIN- OF- CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.
INSTRUCTIONS ON THE BACK.

COC #:
ALS Quote

* 2 0 3 1 3 7 0 *

1. CLIENT INFORMATION

Client Name/Address: CB:I, 150 Royall St, Canton, MA 02021
Contact: Ray Cadorette
Phone#: 617-589-6102
Project Name/#: Varian / 152728
Bill To: CB:I
TAT: [✓] Normal- Standard TAT is 10-12 business days. [ ] Rush- TAT subject to ALSI approval and surcharges.
Date Required: Approved By:
Email? [✓] Y raymond.cadorette@cbi.com
Fax? [ ] Y No.:

2. ANALYSES/METHOD REQUESTED

✓ APPROPRIATE TEST CODE/ANALYTE LIST.

No.	TO-15 Analysis	STD LIST	UST LIST	OTHER
1	✓			Site List
2	✓			↓
3	✓			
4	✓			
5	✓			
6	✓			
7	✓			
8	✓			
9	✓			
10				

3. LABORATORY

LABORATORY CANISTER CERTIFIED BY:
GC/MS Analyst Signature: Erin CBoyd

CANISTERS PREPARED BY:
Name: Evin CBoyd
Title: Sr GC/MS Analyst
Custody Sealed Date/Time: 9/15/14 1020
Date Shipped to Client: 9/15/14
Custody Seal #(s): # 1389+1390

RECEIVING INFORMATION:

	Y	N	Initial
COC Complete/Accurate?	✓		AT
Labels Complete/Accurate?	✓		
Cont. in Good Cond.?	✓		
Custody Seals Present?	✓		
(if present) Seals Intact?	✓		
Returned in ≤ 15 days?	✓		
Custody Seal #(s):			

Courier/Tracking #: 1Z6028W22210004552, 1Z6028W22210004543

4. FIELD DATA SHEET

	SAMPLE INFORMATION FOR TO-15									TO-15 FIELD DATA			LABORATORY RECORD			
	Sample Description/Location (as it will appear on the lab report)	Sample Type- Choose one: *IA-indoor air *AS-ambient soil *V-vapor *SS-sub-slab	Sample Date	Start Time	Stop Time	Temp Deg C	1L	6L	Canister No.	Flow Controller No.	Canister Pressure ("Hg) Start	Canister Pressure ("Hg) Stop	Canister Certification File	Canister Pressure ("Hg) Out	Canister Pressure ("Hg) In	Flow Controller Setpoint (mL/min)
1	Bldg 5-1	IA	9/24	8:47	16:13				1512	04790	30	5	13090815	-29.7	-3.3	10.32
2	Bldg 5-2	IA	↓	8:48	16:21				10060	04795	30	5	13090315	-29.7	-1.6	10.22
3	Bldg 5-3	IA		8:49	12:50				1367	04796	28.5	5	13090315	-29.2	-4.5	10.35
4	Bldg 5-6	IA		8:50	16:11				4028	04797	29	5	13090315	-29.7	-4.8	10.21
5	Bldg 5-SV2	SS		10:05	13:57				1796	195535-10	28	4	13090815	-29.7	-2.9	20.60
6	Bldg 5-SV3	SS		10:03	13:56				5639	7280634	30	4	13090815	-29.7	-0.9	20.63
7	Bldg 5-SV4	SS		10:02	13:56				1830	7281404	-	-	13090815	-29.7	-0.1	20.50
8	Bldg 5-SV5	SS		10:01	14:08				1129	7212000	30	8	13090815	-29.8	+0.5	20.62
9	Bldg 5-SV6	SS	↓	10:00	13:57				1265	180879-9	30	4	13090815	-29.8	-1.2	20.48
10																

5. SAMPLED BY (Please Print): Dale Dailey

LOGGED BY(signature): [signature] DATE: 9-26-14 TIME: 1547
REVIEWED BY(signature): [signature] DATE: TIME:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] CB:I	9/25	12:00	2	CB:I Shipping	9/25	12:00
3				4	[signature]	9/26/14	0930
5				6			
7				8			
9				10			

6. PROJECT INFORMATION

Data Deliverables: [ ] Standard [ ] CLP-like [ ] DOD [✓] TO-15 [ ] Other Site List
EDDs- Type:
ALS Field Services: ☐ Pickup ☐ Labor
Other:

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [x] MA other

Phone: 1-717-944-5541
ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057
Rev 03Mar2011

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☐ Teleconference
☐ Meeting

Date: Time:	☐ Call From ☐ Call To Name:
Other Participants:	Telephone Number:
	Company Name:
Topic:	Address:
	City: State: Zip Code:

Summary (Decision and Specific Action Required by Named Persons):

Attention: Bldg 5-SV4: Regulator did not have pressure gauge, could not verify starting or ending pressure

Bldg 5-3: Regulator/Canister dropped to 15 Hg within 60 minutes of starting sample. Verified that regulator was tight and can set up correctly. Had to stop sample @ 12:50, which is 4 hours ahead of schedule.

Please contact Camilla Haley (Camilla.haley@cbi.com) with any questions

Required Action:

Distribution:	☐ Other Distribution by Preparer:	Prepared by (Signature):	PAGE ____ OF ____
Original to Project File Copy to Project Manager Copy to Preparer			

Form Number: 014_2
Rev. 05-12-09

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: CB+I Canton
Horizon WO#: 203370
Sample Delivery Group ID:
Log In By/Date: BWL 9/26/14
(signature)
Number of Shipping containers received:

Project Name/#: VARIAN | 1527258
Date/Time received: 9/26/14 0930
Received By: A TRDINGER
Project Manager Review (date) 9/29/14
(signature)
Courier: UPS

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? (YES) NO NA
   If YES, enter airbill numbers: See COC

Shipping Container Information:

2. Were shipping containers received without signs of tampering? (YES) NO NA
   Comments
3. Were custody seals present and intact? YES NO (NA)
4. Were custody seals numbers present? YES NO (NA)
   List Custody Seal Numbers:

Sample Condition:

5. Were sample containers received intact without signs of tampering? (YES) NO NA
   Comments

Chain of Custody:

6. Did COC arrive with the samples? (YES) NO NA
7. Do sample ID/Sample Description(s) match samples submitted? (YES) NO NA
8. Is date and time of collection listed on the COC for all samples? (YES) NO NA
9. Is identification of sampler on COC? (YES) NO NA
10. Are requested test method(s) on COC? (YES) NO NA
11. Are necessary signatures on COC? (YES) NO NA
12. Was Internal COC initiated? (should always be YES) YES NO (NA)

Sample Integrity Usability:

13. Do sample containers match the COC? (YES) NO NA
14. Were sample canisters received within 15 days of shipment to client (YES) NO NA

Anomalies or Non-Conformances:

Rev. 2/2011

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental Project #: 152728

Project Location: Varian RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2031370-001 to -009

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air x Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B x
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Jennifer M. Stanhope Lamoreux **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 10/9/2014

ALS Environmental

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State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder 2031370 **Project Name** Varian/152728

QC Batch TO15 / 2575

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031370001 2031370002

2079959

Parameter	Original Result	Qualifiers	Units	Spike Conc.
2-Butanone		U	ug/m3	
2-Butanone		U	ppbv	
Acetone		U	ug/m3	
Acetone		U	ppbv	
Surrogate Recoveries				
4-Bromofluorobenzene				

METHOD BLANK 2079957

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
2-Butanone	ND	U	ug/m3	0.6		
2-Butanone	ND	U	ppbv	0.20		
Acetone	ND	U	ug/m3	0.5		
Acetone	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		101	70-130

This is an addendum to the Certificate of Analysis.

Workorder 2031370 **Project Name** Varian/152728

LABORATORY CONTROL SAMPLE 2079958

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
2-Butanone	0.5		ug/m3	0.6	91	60-140
2-Butanone	0.18		ppbv	0.2	91	60-140
Acetone	0.3		ug/m3	0.5	64	60-140
Acetone	0.13		ppbv	0.2	64	60-140
Surrogate Recoveries						
4-Bromofluorobenzene			%		105	70-130

QC Batch TO15 / 2576

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031370001 2031370002 2031370003 2031370004 2031370005 2031370006 2031370007 2031370008

2080548

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	
1,2-Dibromoethane		U	ug/m3	
1,2-Dibromoethane		U	ppbv	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichlorobenzene		U	ppbv	
1,2-Dichloroethane		U	ppbv	
1,2-Dichloroethane		U	ug/m3	
1,2-Dichloropropane		U	ppbv	
1,2-Dichloropropane		U	ug/m3	
1,3-Dichlorobenzene		U	ppbv	
1,3-Dichlorobenzene		U	ug/m3	
1,4-Dichlorobenzene		U	ppbv	
1,4-Dichlorobenzene		U	ug/m3	
1,4-Dioxane		U	ppbv	

This is an addendum to the Certificate of Analysis.

1,4-Dioxane	U	ug/m3
2-Butanone	U	ug/m3
2-Butanone	U	ppbv
2-Hexanone	U	ug/m3
2-Hexanone	U	ppbv
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ug/m3
Acetone	U	ppbv
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ug/m3
Bromodichloromethane	U	ppbv
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ug/m3
Bromomethane	U	ppbv
Carbon Tetrachloride	U	ppbv
Carbon Tetrachloride	U	ug/m3
Chlorobenzene	U	ug/m3
Chlorobenzene	U	ppbv
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ppbv
Chloroform	U	ug/m3
cis-1,2-Dichloroethene	U	ppbv
cis-1,2-Dichloroethene	U	ug/m3
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ug/m3
Ethylbenzene	U	ppbv
Hexachlorobutadiene	U	ppbv
Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ppbv
Methylene Chloride	U	ug/m3
mp-Xylene	U	ppbv
mp-Xylene	U	ug/m3
Naphthalene	U	ppbv
Naphthalene	U	ug/m3
o-Xylene	U	ppbv
o-Xylene	U	ug/m3
Styrene	U	ppbv

This is an addendum to the Certificate of Analysis.

Styrene	U	ug/m3	
tert-Butyl Alcohol	U	ppbv	
Tetrachloroethene	U	ppbv	
Tetrachloroethene	U	ug/m3	
Toluene	U	ug/m3	
Toluene	U	ppbv	
trans-1,2-Dichloroethene	U	ppbv	
trans-1,2-Dichloroethene	U	ug/m3	
trans-1,3-Dichloropropene	U	ppbv	
trans-1,3-Dichloropropene	U	ug/m3	
Trichloroethene	U	ug/m3	
Trichloroethene	U	ppbv	
Vinyl Chloride	U	ug/m3	
Vinyl Chloride	U	ppbv	
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2080546

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ppbv	0.20		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,3-Dichlorobenzene	ND	U	ppbv	0.20		
1,3-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ppbv	0.20		
1,4-Dichlorobenzene	ND	U	ug/m3	1		

This is an addendum to the Certificate of Analysis.

1,4-Dioxane	ND	U	ppbv	0.20
1,4-Dioxane	ND	U	ug/m3	0.7
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ug/m3	0.5
Acetone	ND	U	ppbv	0.20
Benzene	ND	U	ppbv	0.20
Benzene	ND	U	ug/m3	0.6
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ppbv	0.20
Bromoform	ND	U	ug/m3	2
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ppbv	0.20
Carbon Tetrachloride	ND	U	ug/m3	1
Chlorobenzene	ND	U	ug/m3	0.9
Chlorobenzene	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ug/m3	2
Chloroform	ND	U	ug/m3	1
Chloroform	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Hexachlorobutadiene	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7
mp-Xylene	ND	U	ppbv	0.40
mp-Xylene	ND	U	ug/m3	2
Naphthalene	ND	U	ug/m3	1
Naphthalene	ND	U	ppbv	0.20
o-Xylene	ND	U	ppbv	0.20
o-Xylene	ND	U	ug/m3	0.9

This is an addendum to the Certificate of Analysis.

Styrene	ND	U	ppbv	0.20
Styrene	ND	U	ug/m3	0.8
tert-Butyl Alcohol	ND	U	ppbv	0.20
Tetrachloroethene	ND	U	ug/m3	1
Tetrachloroethene	ND	U	ppbv	0.20
Toluene	ND	U	ug/m3	0.8
Toluene	ND	U	ppbv	0.20
trans-1,2-Dichloroethene	ND	U	ppbv	0.20
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,3-Dichloropropene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9
Trichloroethene	ND	U	ug/m3	1
Trichloroethene	ND	U	ppbv	0.20
Vinyl Chloride	ND	U	ppbv	0.20
Vinyl Chloride	ND	U	ug/m3	0.5
Surrogate Recoveries				
4-Bromofluorobenzene			%	103 70-130

LABORATORY CONTROL SAMPLE 2080547

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	0.21		ppbv	0.2	104	60-140
1,1,1-Trichloroethane	1		ug/m3	1	104	60-140
1,1,2,2-Tetrachloroethane	0.24		ppbv	0.2	119	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	119	60-140
1,1,2-Trichloroethane	0.21		ppbv	0.2	107	60-140
1,1,2-Trichloroethane	1		ug/m3	1	107	60-140
1,1-Dichloroethane	0.22		ppbv	0.2	108	60-140
1,1-Dichloroethane	0.9		ug/m3	0.8	108	60-140
1,1-Dichloroethene	0.18		ppbv	0.2	91	60-140
1,1-Dichloroethene	0.7		ug/m3	0.8	91	60-140
1,2-Dibromoethane	0.2		ppbv	0.2	102	60-140
1,2-Dibromoethane	2		ug/m3	2	102	60-140
1,2-Dichlorobenzene	1		ug/m3	1	107	60-140
1,2-Dichlorobenzene	0.21		ppbv	0.2	107	60-140
1,2-Dichloroethane	0.21		ppbv	0.2	107	60-140
1,2-Dichloroethane	0.9		ug/m3	0.8	107	60-140
1,2-Dichloropropane	0.21		ppbv	0.2	104	60-140
1,2-Dichloropropane	1		ug/m3	0.9	104	60-140
1,3-Dichlorobenzene	0.22		ppbv	0.2	108	60-140
1,3-Dichlorobenzene	1		ug/m3	1	108	60-140
1,4-Dichlorobenzene	0.21		ppbv	0.2	106	60-140

This is an addendum to the Certificate of Analysis.

1,4-Dichlorobenzene	1	ug/m3	1	106	60-140
1,4-Dioxane	0.5	ug/m3	0.7	64	60-140
1,4-Dioxane	0.13	ppbv	0.2	64	60-140
2-Butanone	0.2	ppbv	0.2	102	60-140
2-Butanone	0.6	ug/m3	0.6	102	60-140
2-Hexanone	0.16	ppbv	0.2	78	60-140
2-Hexanone	0.6	ug/m3	0.8	78	60-140
4-Methyl-2-Pentanone(MIBK)	0.16	ppbv	0.2	81	60-140
4-Methyl-2-Pentanone(MIBK)	0.7	ug/m3	0.8	81	60-140
Acetone	0.3	ug/m3	0.5	68	60-140
Acetone	0.14	ppbv	0.2	68	60-140
Benzene	0.22	ppbv	0.2	108	60-140
Benzene	0.7	ug/m3	0.6	108	60-140
Bromodichloromethane	0.22	ppbv	0.2	110	60-140
Bromodichloromethane	1	ug/m3	1	110	60-140
Bromoform	0.18	ppbv	0.2	88	60-140
Bromoform	2	ug/m3	2	88	60-140
Bromomethane	0.22	ppbv	0.2	112	60-140
Bromomethane	0.9	ug/m3	0.8	112	60-140
Carbon Tetrachloride	1	ug/m3	1	95	60-140
Carbon Tetrachloride	0.19	ppbv	0.2	95	60-140
Chlorobenzene	0.21	ppbv	0.2	107	60-140
Chlorobenzene	1	ug/m3	0.9	107	60-140
Chlorodibromomethane	0.19	ppbv	0.2	97	60-140
Chlorodibromomethane	2	ug/m3	2	97	60-140
Chloroform	0.23	ppbv	0.2	115	60-140
Chloroform	1	ug/m3	1	115	60-140
cis-1,2-Dichloroethene	0.17	ppbv	0.2	87	60-140
cis-1,2-Dichloroethene	0.7	ug/m3	0.8	87	60-140
cis-1,3-Dichloropropene	0.19	ppbv	0.2	95	60-140
cis-1,3-Dichloropropene	0.9	ug/m3	0.9	95	60-140
Ethylbenzene	0.8	ug/m3	0.9	96	60-140
Ethylbenzene	0.19	ppbv	0.2	96	60-140
Hexachlorobutadiene	0.17	ppbv	0.2	84	60-140
Hexachlorobutadiene	2	ug/m3	2	84	60-140
Methyl t-Butyl Ether	0.17	ppbv	0.2	86	60-140
Methyl t-Butyl Ether	0.6	ug/m3	0.7	86	60-140
Methylene Chloride	0.36	ppbv	0.2	178*	60-140
Methylene Chloride	1	ug/m3	0.7	178*	60-140
mp-Xylene	0.38	ppbv	0.4	95	60-140
mp-Xylene	2	ug/m3	2	95	60-140
Naphthalene	1	ug/m3	1	104	60-140
Naphthalene	0.21	ppbv	0.2	104	60-140
o-Xylene	0.18	ppbv	0.2	92	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2031370 **Project Name** Varian/152728

o-Xylene	0.8	ug/m3	0.9	92	60-140
Styrene	0.17	ppbv	0.2	87	60-140
Styrene	0.7	ug/m3	0.9	87	60-140
tert-Butyl Alcohol	0.16	ppbv	0.2	82	60-140
Tetrachloroethene	0.16	ppbv	0.2	80	60-140
Tetrachloroethene	1	ug/m3	1	80	60-140
Toluene	0.19	ppbv	0.2	93	60-140
Toluene	0.7	ug/m3	0.8	93	60-140
trans-1,2-Dichloroethene	0.7	ug/m3	0.8	93	60-140
trans-1,2-Dichloroethene	0.19	ppbv	0.2	93	60-140
trans-1,3-Dichloropropene	0.19	ppbv	0.2	93	60-140
trans-1,3-Dichloropropene	0.8	ug/m3	0.9	93	60-140
Trichloroethene	0.18	ppbv	0.2	88	60-140
Trichloroethene	0.9	ug/m3	1	88	60-140
Vinyl Chloride	0.27	ppbv	0.2	134	60-140
Vinyl Chloride	0.7	ug/m3	0.5	134	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		109	70-130

QC Batch TO15 / 2577

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031370003 2031370004 2031370005 2031370006 2031370007 2031370008 2031370009

2081636

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	
1,2-Dibromoethane		U	ug/m3	
1,2-Dibromoethane		U	ppbv	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichlorobenzene		U	ppbv	
1,2-Dichloroethane		U	ppbv	

This is an addendum to the Certificate of Analysis.

1,2-Dichloroethane	U	ug/m3
1,2-Dichloropropane	U	ppbv
1,2-Dichloropropane	U	ug/m3
1,3-Dichlorobenzene	U	ug/m3
1,3-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ug/m3
1,4-Dioxane	U	ug/m3
1,4-Dioxane	U	ppbv
2-Butanone	U	ug/m3
2-Butanone	U	ppbv
2-Hexanone	U	ug/m3
2-Hexanone	U	ppbv
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ppbv
Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ug/m3
Bromodichloromethane	U	ppbv
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ppbv
Bromomethane	U	ug/m3
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ug/m3
Chloroform	U	ppbv
cis-1,2-Dichloroethene	U	ppbv
cis-1,2-Dichloroethene	U	ug/m3
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ug/m3
Ethylbenzene	U	ppbv
Hexachlorobutadiene	U	ppbv
Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ppbv

This is an addendum to the Certificate of Analysis.

Methylene Chloride	U	ug/m3	
mp-Xylene	U	ug/m3	
mp-Xylene	U	ppbv	
Naphthalene	U	ug/m3	
Naphthalene	U	ppbv	
o-Xylene	U	ug/m3	
o-Xylene	U	ppbv	
Styrene	U	ppbv	
Styrene	U	ug/m3	
Tetrachloroethene	U	ppbv	
Tetrachloroethene	U	ug/m3	
Toluene	U	ug/m3	
Toluene	U	ppbv	
trans-1,2-Dichloroethene	U	ppbv	
trans-1,2-Dichloroethene	U	ug/m3	
trans-1,3-Dichloropropene	U	ppbv	
trans-1,3-Dichloropropene	U	ug/m3	
Trichloroethene	U	ppbv	
Trichloroethene	U	ug/m3	
Vinyl Chloride	U	ppbv	
Vinyl Chloride	U	ug/m3	
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2081634

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ppbv	0.20		

1,2-Dichloroethane	ND	U	ug/m3	0.8
1,2-Dichloropropane	ND	U	ppbv	0.20
1,2-Dichloropropane	ND	U	ug/m3	0.9
1,3-Dichlorobenzene	ND	U	ppbv	0.20
1,3-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ppbv	0.20
1,4-Dioxane	ND	U	ug/m3	0.7
1,4-Dioxane	ND	U	ppbv	0.20
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ug/m3	2
Bromoform	ND	U	ppbv	0.20
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ug/m3	2
Chlorodibromomethane	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
Chloroform	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Hexachlorobutadiene	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7

This is an addendum to the Certificate of Analysis.

Methylene Chloride	ND	U	ppbv	0.20
mp-Xylene	ND	U	ug/m3	2
mp-Xylene	ND	U	ppbv	0.40
Naphthalene	ND	U	ppbv	0.20
Naphthalene	ND	U	ug/m3	1
o-Xylene	ND	U	ppbv	0.20
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ug/m3	0.8
Styrene	ND	U	ppbv	0.20
Tetrachloroethene	ND	U	ug/m3	1
Tetrachloroethene	ND	U	ppbv	0.20
Toluene	ND	U	ug/m3	0.8
Toluene	ND	U	ppbv	0.20
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,2-Dichloroethene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9
Trichloroethene	ND	U	ppbv	0.20
Trichloroethene	ND	U	ug/m3	1
Vinyl Chloride	ND	U	ppbv	0.20
Vinyl Chloride	ND	U	ug/m3	0.5
Surrogate Recoveries				
4-Bromofluorobenzene			%	98 70-130

LABORATORY CONTROL SAMPLE 2081635

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	94	60-140
1,1,1-Trichloroethane	0.19		ppbv	0.2	94	60-140
1,1,2,2-Tetrachloroethane	0.21		ppbv	0.2	106	60-140
1,1,2,2-Tetrachloroethane	1		ug/m3	1	106	60-140
1,1,2-Trichloroethane	0.2		ppbv	0.2	99	60-140
1,1,2-Trichloroethane	1		ug/m3	1	99	60-140
1,1-Dichloroethane	0.2		ppbv	0.2	102	60-140
1,1-Dichloroethane	0.8		ug/m3	0.8	102	60-140
1,1-Dichloroethene	0.18		ppbv	0.2	89	60-140
1,1-Dichloroethene	0.7		ug/m3	0.8	89	60-140
1,2-Dibromoethane	0.2		ppbv	0.2	98	60-140
1,2-Dibromoethane	2		ug/m3	2	98	60-140
1,2-Dichlorobenzene	1		ug/m3	1	104	60-140
1,2-Dichlorobenzene	0.21		ppbv	0.2	104	60-140
1,2-Dichloroethane	0.19		ppbv	0.2	97	60-140

1,2-Dichloroethane	0.8	ug/m3	0.8	97	60-140
1,2-Dichloropropane	0.19	ppbv	0.2	97	60-140
1,2-Dichloropropane	0.9	ug/m3	0.9	97	60-140
1,3-Dichlorobenzene	0.23	ppbv	0.2	114	60-140
1,3-Dichlorobenzene	1	ug/m3	1	114	60-140
1,4-Dichlorobenzene	1	ug/m3	1	109	60-140
1,4-Dichlorobenzene	0.22	ppbv	0.2	109	60-140
1,4-Dioxane	0.12	ppbv	0.2	60	60-140
1,4-Dioxane	0.4	ug/m3	0.7	60	60-140
2-Butanone	0.19	ppbv	0.2	97	60-140
2-Butanone	0.6	ug/m3	0.6	97	60-140
2-Hexanone	0.16	ppbv	0.2	79	60-140
2-Hexanone	0.6	ug/m3	0.8	79	60-140
4-Methyl-2-Pentanone(MIBK)	0.7	ug/m3	0.8	80	60-140
4-Methyl-2-Pentanone(MIBK)	0.16	ppbv	0.2	80	60-140
Acetone	0.12	ppbv	0.2	59*	60-140
Acetone	0.3	ug/m3	0.5	59*	60-140
Benzene	0.21	ppbv	0.2	104	60-140
Benzene	0.7	ug/m3	0.6	104	60-140
Bromodichloromethane	0.19	ppbv	0.2	97	60-140
Bromodichloromethane	1	ug/m3	1	97	60-140
Bromoform	0.18	ppbv	0.2	89	60-140
Bromoform	2	ug/m3	2	89	60-140
Bromomethane	0.7	ug/m3	0.8	95	60-140
Bromomethane	0.19	ppbv	0.2	95	60-140
Carbon Tetrachloride	1	ug/m3	1	101	60-140
Carbon Tetrachloride	0.2	ppbv	0.2	101	60-140
Chlorobenzene	0.2	ppbv	0.2	100	60-140
Chlorobenzene	0.9	ug/m3	0.9	100	60-140
Chlorodibromomethane	0.19	ppbv	0.2	96	60-140
Chlorodibromomethane	2	ug/m3	2	96	60-140
Chloroform	0.22	ppbv	0.2	108	60-140
Chloroform	1	ug/m3	1	108	60-140
cis-1,2-Dichloroethene	0.8	ug/m3	0.8	103	60-140
cis-1,2-Dichloroethene	0.21	ppbv	0.2	103	60-140
cis-1,3-Dichloropropene	0.18	ppbv	0.2	89	60-140
cis-1,3-Dichloropropene	0.8	ug/m3	0.9	89	60-140
Ethylbenzene	0.18	ppbv	0.2	91	60-140
Ethylbenzene	0.8	ug/m3	0.9	91	60-140
Hexachlorobutadiene	0.17	ppbv	0.2	87	60-140
Hexachlorobutadiene	2	ug/m3	2	87	60-140
Methyl t-Butyl Ether	0.18	ppbv	0.2	90	60-140
Methyl t-Butyl Ether	0.6	ug/m3	0.7	90	60-140
Methylene Chloride	0.26	ppbv	0.2	132	60-140

Workorder 2031370 **Project Name** Varian/152728

Methylene Chloride	0.9	ug/m3	0.7	132	60-140
mp-Xylene	0.38	ppbv	0.4	94	60-140
mp-Xylene	2	ug/m3	2	94	60-140
Naphthalene	0.16	ppbv	0.2	79	60-140
Naphthalene	0.8	ug/m3	1	79	60-140
o-Xylene	0.18	ppbv	0.2	90	60-140
o-Xylene	0.8	ug/m3	0.9	90	60-140
Styrene	0.17	ppbv	0.2	87	60-140
Styrene	0.7	ug/m3	0.9	87	60-140
Tetrachloroethene	0.17	ppbv	0.2	85	60-140
Tetrachloroethene	1	ug/m3	1	85	60-140
Toluene	0.18	ppbv	0.2	92	60-140
Toluene	0.7	ug/m3	0.8	92	60-140
trans-1,2-Dichloroethene	0.7	ug/m3	0.8	87	60-140
trans-1,2-Dichloroethene	0.17	ppbv	0.2	87	60-140
trans-1,3-Dichloropropene	0.17	ppbv	0.2	87	60-140
trans-1,3-Dichloropropene	0.8	ug/m3	0.9	87	60-140
Trichloroethene	0.19	ppbv	0.2	96	60-140
Trichloroethene	1	ug/m3	1	96	60-140
Vinyl Chloride	0.19	ppbv	0.2	95	60-140
Vinyl Chloride	0.5	ug/m3	0.5	95	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		104	70-130

QC Batch TO15 / 2579

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031370009

2082170

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	

1,2-Dibromoethane	U	ug/m3
1,2-Dibromoethane	U	ppbv
1,2-Dichlorobenzene	U	ug/m3
1,2-Dichlorobenzene	U	ppbv
1,2-Dichloroethane	U	ppbv
1,2-Dichloroethane	U	ug/m3
1,2-Dichloropropane	U	ppbv
1,2-Dichloropropane	U	ug/m3
1,3-Dichlorobenzene	U	ug/m3
1,3-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ug/m3
1,4-Dioxane	U	ug/m3
1,4-Dioxane	U	ppbv
2-Butanone	U	ug/m3
2-Butanone	U	ppbv
2-Hexanone	U	ug/m3
2-Hexanone	U	ppbv
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ppbv
Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ug/m3
Bromodichloromethane	U	ppbv
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ppbv
Bromomethane	U	ug/m3
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ug/m3
Chloroform	U	ppbv
cis-1,2-Dichloroethene	U	ppbv
cis-1,2-Dichloroethene	U	ug/m3
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ug/m3
Ethylbenzene	U	ppbv

This is an addendum to the Certificate of Analysis.

Hexachlorobutadiene	U	ppbv	
Hexachlorobutadiene	U	ug/m3	
Methyl t-Butyl Ether	U	ppbv	
Methyl t-Butyl Ether	U	ug/m3	
Methylene Chloride	U	ppbv	
Methylene Chloride	U	ug/m3	
mp-Xylene	U	ug/m3	
mp-Xylene	U	ppbv	
Naphthalene	U	ug/m3	
Naphthalene	U	ppbv	
o-Xylene	U	ug/m3	
o-Xylene	U	ppbv	
Styrene	U	ppbv	
Styrene	U	ug/m3	
Tetrachloroethene	U	ppbv	
Tetrachloroethene	U	ug/m3	
Toluene	U	ug/m3	
Toluene	U	ppbv	
trans-1,2-Dichloroethene	U	ppbv	
trans-1,2-Dichloroethene	U	ug/m3	
trans-1,3-Dichloropropene	U	ppbv	
trans-1,3-Dichloropropene	U	ug/m3	
Trichloroethene	U	ppbv	
Trichloroethene	U	ug/m3	
Vinyl Chloride	U	ppbv	
Vinyl Chloride	U	ug/m3	
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2082168

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		

1,2-Dibromoethane	ND	U	ppbv	0.20
1,2-Dibromoethane	ND	U	ug/m3	2
1,2-Dichlorobenzene	ND	U	ug/m3	1
1,2-Dichlorobenzene	ND	U	ppbv	0.20
1,2-Dichloroethane	ND	U	ppbv	0.20
1,2-Dichloroethane	ND	U	ug/m3	0.8
1,2-Dichloropropane	ND	U	ppbv	0.20
1,2-Dichloropropane	ND	U	ug/m3	0.9
1,3-Dichlorobenzene	ND	U	ppbv	0.20
1,3-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ppbv	0.20
1,4-Dioxane	ND	U	ug/m3	0.7
1,4-Dioxane	ND	U	ppbv	0.20
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ug/m3	2
Bromoform	ND	U	ppbv	0.20
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ug/m3	2
Chlorodibromomethane	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
Chloroform	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20

Hexachlorobutadiene	ND	U	ug/m3	2		
Hexachlorobutadiene	ND	U	ppbv	0.20		
Methyl t-Butyl Ether	ND	U	ug/m3	0.7		
Methyl t-Butyl Ether	ND	U	ppbv	0.20		
Methylene Chloride	ND	U	ug/m3	0.7		
Methylene Chloride	ND	U	ppbv	0.20		
mp-Xylene	ND	U	ug/m3	2		
mp-Xylene	ND	U	ppbv	0.40		
Naphthalene	ND	U	ppbv	0.20		
Naphthalene	ND	U	ug/m3	1		
o-Xylene	ND	U	ppbv	0.20		
o-Xylene	ND	U	ug/m3	0.9		
Styrene	ND	U	ug/m3	0.8		
Styrene	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ug/m3	1		
Tetrachloroethene	ND	U	ppbv	0.20		
Toluene	ND	U	ug/m3	0.8		
Toluene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ppbv	0.20		
Vinyl Chloride	ND	U	ug/m3	0.5		
Surrogate Recoveries						
4-Bromofluorobenzene			%		96	70-130

LABORATORY CONTROL SAMPLE 2082169

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	100	60-140
1,1,1-Trichloroethane	0.2		ppbv	0.2	100	60-140
1,1,2,2-Tetrachloroethane	0.22		ppbv	0.2	108	60-140
1,1,2,2-Tetrachloroethane	1		ug/m3	1	108	60-140
1,1,2-Trichloroethane	0.21		ppbv	0.2	105	60-140
1,1,2-Trichloroethane	1		ug/m3	1	105	60-140
1,1-Dichloroethane	0.2		ppbv	0.2	102	60-140
1,1-Dichloroethane	0.8		ug/m3	0.8	102	60-140
1,1-Dichloroethene	0.18		ppbv	0.2	88	60-140
1,1-Dichloroethene	0.7		ug/m3	0.8	88	60-140

1,2-Dibromoethane	0.21	ppbv	0.2	104	60-140
1,2-Dibromoethane	2	ug/m3	2	104	60-140
1,2-Dichlorobenzene	1	ug/m3	1	111	60-140
1,2-Dichlorobenzene	0.22	ppbv	0.2	111	60-140
1,2-Dichloroethane	0.21	ppbv	0.2	106	60-140
1,2-Dichloroethane	0.9	ug/m3	0.8	106	60-140
1,2-Dichloropropane	0.21	ppbv	0.2	106	60-140
1,2-Dichloropropane	1	ug/m3	0.9	106	60-140
1,3-Dichlorobenzene	0.23	ppbv	0.2	113	60-140
1,3-Dichlorobenzene	1	ug/m3	1	113	60-140
1,4-Dichlorobenzene	1	ug/m3	1	109	60-140
1,4-Dichlorobenzene	0.22	ppbv	0.2	109	60-140
1,4-Dioxane	0.13	ppbv	0.2	66	60-140
1,4-Dioxane	0.5	ug/m3	0.7	66	60-140
2-Butanone	0.19	ppbv	0.2	96	60-140
2-Butanone	0.6	ug/m3	0.6	96	60-140
2-Hexanone	0.17	ppbv	0.2	84	60-140
2-Hexanone	0.7	ug/m3	0.8	84	60-140
4-Methyl-2-Pentanone(MIBK)	0.6	ug/m3	0.8	73	60-140
4-Methyl-2-Pentanone(MIBK)	0.15	ppbv	0.2	73	60-140
Acetone	0.12	ppbv	0.2	60	60-140
Acetone	0.3	ug/m3	0.5	60	60-140
Benzene	0.21	ppbv	0.2	106	60-140
Benzene	0.7	ug/m3	0.6	106	60-140
Bromodichloromethane	0.19	ppbv	0.2	95	60-140
Bromodichloromethane	1	ug/m3	1	95	60-140
Bromoform	0.18	ppbv	0.2	92	60-140
Bromoform	2	ug/m3	2	92	60-140
Bromomethane	0.7	ug/m3	0.8	87	60-140
Bromomethane	0.17	ppbv	0.2	87	60-140
Carbon Tetrachloride	1	ug/m3	1	99	60-140
Carbon Tetrachloride	0.2	ppbv	0.2	99	60-140
Chlorobenzene	0.21	ppbv	0.2	105	60-140
Chlorobenzene	1	ug/m3	0.9	105	60-140
Chlorodibromomethane	0.19	ppbv	0.2	93	60-140
Chlorodibromomethane	2	ug/m3	2	93	60-140
Chloroform	0.22	ppbv	0.2	109	60-140
Chloroform	1	ug/m3	1	109	60-140
cis-1,2-Dichloroethene	0.7	ug/m3	0.8	94	60-140
cis-1,2-Dichloroethene	0.19	ppbv	0.2	94	60-140
cis-1,3-Dichloropropene	0.19	ppbv	0.2	93	60-140
cis-1,3-Dichloropropene	0.8	ug/m3	0.9	93	60-140
Ethylbenzene	0.19	ppbv	0.2	95	60-140
Ethylbenzene	0.8	ug/m3	0.9	95	60-140

This is an addendum to the Certificate of Analysis.

Hexachlorobutadiene	0.16	ppbv	0.2	81	60-140
Hexachlorobutadiene	2	ug/m3	2	81	60-140
Methyl t-Butyl Ether	0.18	ppbv	0.2	91	60-140
Methyl t-Butyl Ether	0.7	ug/m3	0.7	91	60-140
Methylene Chloride	0.26	ppbv	0.2	132	60-140
Methylene Chloride	0.9	ug/m3	0.7	132	60-140
mp-Xylene	0.38	ppbv	0.4	96	60-140
mp-Xylene	2	ug/m3	2	96	60-140
Naphthalene	0.18	ppbv	0.2	92	60-140
Naphthalene	1	ug/m3	1	92	60-140
o-Xylene	0.18	ppbv	0.2	92	60-140
o-Xylene	0.8	ug/m3	0.9	92	60-140
Styrene	0.18	ppbv	0.2	89	60-140
Styrene	0.8	ug/m3	0.9	89	60-140
Tetrachloroethene	0.18	ppbv	0.2	91	60-140
Tetrachloroethene	1	ug/m3	1	91	60-140
Toluene	0.19	ppbv	0.2	96	60-140
Toluene	0.7	ug/m3	0.8	96	60-140
trans-1,2-Dichloroethene	0.8	ug/m3	0.8	100	60-140
trans-1,2-Dichloroethene	0.2	ppbv	0.2	100	60-140
trans-1,3-Dichloropropene	0.18	ppbv	0.2	92	60-140
trans-1,3-Dichloropropene	0.8	ug/m3	0.9	92	60-140
Trichloroethene	0.18	ppbv	0.2	89	60-140
Trichloroethene	1	ug/m3	1	89	60-140
Vinyl Chloride	0.19	ppbv	0.2	96	60-140
Vinyl Chloride	0.5	ug/m3	0.5	96	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		101	70-130

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2031370001	Bldg 5-1	TO-15	TO15 / 2575	TO-15	TO15 / 2575
2031370001	Bldg 5-1	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370002	Bldg 5-2	TO-15	TO15 / 2575	TO-15	TO15 / 2575
2031370002	Bldg 5-2	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370003	Bldg 5-3	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370003	Bldg 5-3	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370004	Bldg 5-6	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370004	Bldg 5-6	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370005	Bldg 5-SV2	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370005	Bldg 5-SV2	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370006	Bldg 5-SV3	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370006	Bldg 5-SV3	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370007	Bldg 5-SV4	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370007	Bldg 5-SV4	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370008	Bldg 5-SV5	TO-15	TO15 / 2576	TO-15	TO15 / 2576
2031370008	Bldg 5-SV5	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370009	Bldg 5-SV6	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031370009	Bldg 5-SV6	TO-15	TO15 / 2579	TO-15	TO15 / 2579

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 152780
Prepared By: Pernilla Haley
Date : 10/15/2014
Matrix: Air
Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15
Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : 2031945
Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
9/25/14	VOC TO-15		30 Days	10/8/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No

If no, list sample ID where range was exceeded: See notes

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 Yes

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
The % recovery was outside limits in the LCS or LCSD for methylene chloride and acetone in lab control samples. A J qualifier was added for acetone in samples BLDG3-SVE1 other data was not impacted since the analytical results were non-detect.

Reviewed By: RJC

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 24, 2014

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Revised Report - 10/24/2014 12:24:57 PM - See workorder comment section for explanation

Project Name:	**Varian Air Samples**	Workorder:	**2031945**
Purchase Order:	**915964-000**	Workorder ID:	**CVC002|Varian**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, September 30, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Cathy Mainville

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2031945 CVC002|Varian

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2031945001	Bldg 3 SVE 1	Air	9/25/2014 14:16	9/30/2014 08:02	Collected by Client
2031945002	Bldg 3 SVE 3	Air	9/25/2014 14:21	9/30/2014 08:02	Collected by Client
2031945003	Bldg 3 SVE 4	Air	9/25/2014 14:26	9/30/2014 08:02	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2031945 CVC002|Varian

Workorder Comments

This report was modified on 10/14/14 to add the MassDEP form. VLF

Sample Comments

Lab ID: 2031945002 **Sample ID:** Bldg 3 SVE 3 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

Lab ID: 2031945003 **Sample ID:** Bldg 3 SVE 4 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945001** Date Collected: 9/25/2014 14:16 Matrix: Air

Sample ID: **Bldg 3 SVE 1** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	290	2	ug/m3	5	TO-15		10/7/14 02:47	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		10/8/14 04:24	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Bromoform	ND		ug/m3	2	TO-15		10/8/14 04:24	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
2-Butanone	63		ug/m3	0.6	TO-15		10/8/14 04:24	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		10/8/14 04:24	ECB	A
Chloroform	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		10/8/14 04:24	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		10/8/14 04:24	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		10/8/14 04:24	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		10/8/14 04:24	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
Methylene Chloride	7		ug/m3	0.7	TO-15		10/8/14 04:24	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Tetrachloroethene	240		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Toluene	1		ug/m3	0.8	TO-15		10/8/14 04:24	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		10/8/14 04:24	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945001** Date Collected: 9/25/2014 14:16 Matrix: Air

Sample ID: **Bldg 3 SVE 1** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	3		ug/m3	1	TO-15		10/8/14 04:24	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/8/14 04:24	ECB	A
o-Xylene	ND		ug/m3	0.9	TO-15		10/8/14 04:24	ECB	A
mp-Xylene	ND		ug/m3	2	TO-15		10/8/14 04:24	ECB	A
Acetone	120	1	ppbv	2.0	TO-15		10/7/14 02:47	ECB	A
Benzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
2-Butanone	21		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Ethylbenzene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Methylene Chloride	2.1		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Styrene	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Tetrachloroethene	35		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A
Toluene	0.27		ppbv	0.20	TO-15		10/8/14 04:24	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945001** Date Collected: 9/25/2014 14:16 Matrix: Air

Sample ID: **Bldg 3 SVE 1** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/8/14 04:24	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			10/8/14 04:24	ECB	A
Trichloroethene	0.60		ppbv	0.20	TO-15			10/8/14 04:24	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/8/14 04:24	ECB	A
o-Xylene	ND		ppbv	0.20	TO-15			10/8/14 04:24	ECB	A
mp-Xylene	ND		ppbv	0.40	TO-15			10/8/14 04:24	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			10/8/14 04:24	ECB	A
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			10/7/14 02:47	ECB	A

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945002** Date Collected: 9/25/2014 14:21 Matrix: Air

Sample ID: **Bldg 3 SVE 3** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	1700		ug/m3	600	TO-15		10/8/14 13:48	ECB	A
Benzene	ND		ug/m3	6	TO-15		10/7/14 20:52	ECB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		10/7/14 20:52	ECB	A
Bromoform	ND		ug/m3	21	TO-15		10/7/14 20:52	ECB	A
Bromomethane	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
2-Butanone	3200		ug/m3	1500	TO-15		10/9/14 15:10	ECB	A
Carbon Tetrachloride	ND		ug/m3	13	TO-15		10/7/14 20:52	ECB	A
Chlorobenzene	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
Chlorodibromomethane	ND		ug/m3	17	TO-15		10/7/14 20:52	ECB	A
Chloroform	ND		ug/m3	10	TO-15		10/7/14 20:52	ECB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		10/7/14 20:52	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 20:52	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 20:52	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 20:52	ECB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
1,1-Dichloroethene	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
cis-1,2-Dichloroethene	120		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
trans-1,2-Dichloroethene	8		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
1,4-Dioxane	ND		ug/m3	7	TO-15		10/7/14 20:52	ECB	A
Ethylbenzene	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
Hexachlorobutadiene	ND		ug/m3	21	TO-15		10/7/14 20:52	ECB	A
2-Hexanone	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		10/7/14 20:52	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
Methylene Chloride	ND		ug/m3	7	TO-15		10/7/14 20:52	ECB	A
Naphthalene	ND		ug/m3	10	TO-15		10/7/14 20:52	ECB	A
Styrene	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	14	TO-15		10/7/14 20:52	ECB	A
Tetrachloroethene	410000		ug/m3	3400	TO-15		10/9/14 15:10	ECB	A
Toluene	ND		ug/m3	8	TO-15		10/7/14 20:52	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	11	TO-15		10/7/14 20:52	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	11	TO-15		10/7/14 20:52	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945002** Date Collected: 9/25/2014 14:21 Matrix: Air

Sample ID: **Bldg 3 SVE 3** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	5000		ug/m3	2700	TO-15		10/9/14 15:10	ECB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		10/7/14 20:52	ECB	A
o-Xylene	ND		ug/m3	9	TO-15		10/7/14 20:52	ECB	A
mp-Xylene	ND		ug/m3	17	TO-15		10/7/14 20:52	ECB	A
Acetone	720		ppbv	250	TO-15		10/8/14 13:48	ECB	A
Benzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Bromodichloromethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Bromoform	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Bromomethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
2-Butanone	1100		ppbv	500	TO-15		10/9/14 15:10	ECB	A
Carbon Tetrachloride	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Chlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Chlorodibromomethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Chloroform	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,2-Dibromoethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,2-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,3-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,4-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,1-Dichloroethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,2-Dichloroethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,1-Dichloroethene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
cis-1,2-Dichloroethene	31		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
trans-1,2-Dichloroethene	2.1		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,2-Dichloropropane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,4-Dioxane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Ethylbenzene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Hexachlorobutadiene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
2-Hexanone	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Methyl t-Butyl Ether	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Methylene Chloride	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Naphthalene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Styrene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A
Tetrachloroethene	60000		ppbv	500	TO-15		10/9/14 15:10	ECB	A
Toluene	ND		ppbv	2.0	TO-15		10/7/14 20:52	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945002** Date Collected: 9/25/2014 14:21 Matrix: Air

Sample ID: **Bldg 3 SVE 3** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	2.0	TO-15			10/7/14 20:52	ECB	A
1,1,2-Trichloroethane	ND		ppbv	2.0	TO-15			10/7/14 20:52	ECB	A
Trichloroethene	930		ppbv	500	TO-15			10/9/14 15:10	ECB	A
Vinyl Chloride	ND		ppbv	2.0	TO-15			10/7/14 20:52	ECB	A
o-Xylene	ND		ppbv	2.0	TO-15			10/7/14 20:52	ECB	A
mp-Xylene	ND		ppbv	4.0	TO-15			10/7/14 20:52	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	113		%	70 - 130	TO-15			10/7/14 20:52	ECB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15			10/8/14 13:48	ECB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15			10/9/14 15:10	ECB	A

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ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945003** Date Collected: 9/25/2014 14:26 Matrix: Air

Sample ID: **Bldg 3 SVE 4** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	3700		ug/m3	230	TO-15		10/8/14 14:28	ECB	A
Benzene	ND		ug/m3	6	TO-15		10/7/14 21:31	ECB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		10/7/14 21:31	ECB	A
Bromoform	ND		ug/m3	21	TO-15		10/7/14 21:31	ECB	A
Bromomethane	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
2-Butanone	13000		ug/m3	280	TO-15		10/8/14 14:28	ECB	A
Carbon Tetrachloride	ND		ug/m3	13	TO-15		10/7/14 21:31	ECB	A
Chlorobenzene	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
Chlorodibromomethane	ND		ug/m3	17	TO-15		10/7/14 21:31	ECB	A
Chloroform	ND		ug/m3	10	TO-15		10/7/14 21:31	ECB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		10/7/14 21:31	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 21:31	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 21:31	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	12	TO-15		10/7/14 21:31	ECB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
1,1-Dichloroethene	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
1,4-Dioxane	ND		ug/m3	7	TO-15		10/7/14 21:31	ECB	A
Ethylbenzene	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
Hexachlorobutadiene	ND		ug/m3	21	TO-15		10/7/14 21:31	ECB	A
2-Hexanone	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		10/7/14 21:31	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
Methylene Chloride	ND		ug/m3	7	TO-15		10/7/14 21:31	ECB	A
Naphthalene	ND		ug/m3	10	TO-15		10/7/14 21:31	ECB	A
Styrene	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	14	TO-15		10/7/14 21:31	ECB	A
Tetrachloroethene	69000		ug/m3	640	TO-15		10/8/14 14:28	ECB	A
Toluene	ND		ug/m3	8	TO-15		10/7/14 21:31	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	11	TO-15		10/7/14 21:31	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	11	TO-15		10/7/14 21:31	ECB	A

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945003** Date Collected: 9/25/2014 14:26 Matrix: Air

Sample ID: **Bldg 3 SVE 4** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Trichloroethene	500		ug/m3	11	TO-15		10/7/14 21:31	ECB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		10/7/14 21:31	ECB	A
o-Xylene	ND		ug/m3	9	TO-15		10/7/14 21:31	ECB	A
mp-Xylene	ND		ug/m3	17	TO-15		10/7/14 21:31	ECB	A
Acetone	1600		ppbv	95	TO-15		10/8/14 14:28	ECB	A
Benzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Bromodichloromethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Bromoform	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Bromomethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
2-Butanone	4300		ppbv	95	TO-15		10/8/14 14:28	ECB	A
Carbon Tetrachloride	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Chlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Chlorodibromomethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Chloroform	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,2-Dibromoethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,2-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,3-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,4-Dichlorobenzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,1-Dichloroethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,2-Dichloroethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,1-Dichloroethene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,2-Dichloropropane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
cis-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,4-Dioxane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Ethylbenzene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Hexachlorobutadiene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
2-Hexanone	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Methyl t-Butyl Ether	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Methylene Chloride	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Naphthalene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Styrene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A
Tetrachloroethene	10000		ppbv	95	TO-15		10/8/14 14:28	ECB	A
Toluene	ND		ppbv	2.0	TO-15		10/7/14 21:31	ECB	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2031945 CVC002|Varian

Lab ID: **2031945003** Date Collected: 9/25/2014 14:26 Matrix: Air

Sample ID: **Bldg 3 SVE 4** Date Received: 9/30/2014 08:02

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,1,1-Trichloroethane	ND		ppbv	2.0	TO-15			10/7/14 21:31	ECB	A
1,1,2-Trichloroethane	ND		ppbv	2.0	TO-15			10/7/14 21:31	ECB	A
Trichloroethene	93		ppbv	2.0	TO-15			10/7/14 21:31	ECB	A
Vinyl Chloride	ND		ppbv	2.0	TO-15			10/7/14 21:31	ECB	A
o-Xylene	ND		ppbv	2.0	TO-15			10/7/14 21:31	ECB	A
mp-Xylene	ND		ppbv	4.0	TO-15			10/7/14 21:31	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	111		%	70 - 130	TO-15			10/7/14 21:31	ECB	A
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			10/8/14 14:28	ECB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2031945001	1	Bldg 3 SVE 1	TO-15	Acetone

The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.

2031945001	2	Bldg 3 SVE 1	TO-15	Acetone

The QC sample type LCS for method TO-15 was outside the control limits for the analyte Acetone. The % Recovery was reported as 59 and the control limits were 60 to 140.

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AIR ANALYSIS
CHAIN- OF- CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.

INSTRUCTIONS ON THE BACK.

COC #:

ALS Quote

2031945

1. CLIENT INFORMATION

Client Name/Address: CB+I
150 Royall St Canton MA 02021
Contact: Raymond Cadorette
Phone#: 617 589 6102
Project Name/#: Vapor
Bill To:

TAT: [X] Normal- Standard TAT is 10- 12 business days. [ ] Rush- TAT subject to ALS approval and surcharges.
Date Required: Approved By:

Email? [X] Y Raymond.Cadorette.CBI.com
Fax? [ ] Y No.:

2. ANALYSES/METHOD REQUESTED

No.	TO-15 Analysis	STD LIST	UST LIST	OTHER
1	X			
2	X			
3				
4				
5				
6				
7				
8				
9				
10				

√ APPROPRIATE TEST CODE/ANALYTE LIST.

3. LABORATORY

LABORATORY CANISTER CERTIFIED BY:
GC/MS Analyst Signature: Carl H. Simmons

CANISTERS PREPARED BY:
Name: Carl H. Simmons
Title: Sr. GC/MS Analyst
Custody Sealed Date/Time: 9/18/14 1200
Date Shipped to Client: 9/18/14
Custody Seal #(s): 1391
1392 (PACKED)

RECEIVING INFORMATION:

	Y	N	Initial
COC Complete/Accurate?	✓		JS
Labels Complete/Accurate?	✓		
Cont. in Good Cond.?	✓		
Custody Seals Present?		✓	
(if present) Seals Intact?			
Returned in ≤ 15 days?	✓		

Custody Seal #(s):
fedx
Courier/Tracking #: 7900 5596 5040

4. FIELD DATA SHEET

	Sample Description/Location (as it will appear on the lab report)	Sample Type: Choose one! *IA-Indoor air *AS-ambient soil *V-vapor *SS-sub-slab	Sample Date	Start Time	Stop Time	Temp Deg C	1L	6L	Canister No.	Flow Controller No.	Canister Pressure ("Hg) Start	Canister Pressure ("Hg) Stop	Canister Certification File	Canister Pressure ("Hg) Out	Canister Pressure ("Hg) In	Flow Controller Setpoint (mL/min)
1	~~SS~~ Bldg 3 SVE 1	SS	9.25.14	1415	1416			✓	1533	N/A	29	5	13091506	-29.6	-3.6	N/A
2	Bldg 3 SVE 3	SS	9.25.14	1420	1421			✓	1828	N/A	30	5	13091506	-29.6	-1.0	N/A
3	Bldg 3 SVE 4	SS	9.25.14	1425	1426			✓	5025	N/A	30	5	13091506	-29.6	-0.5	N/A
4																
5																
6																
7																
8																
9																
10																

TO- 15 FIELD DATA / LABORATORY RECORD

5. SAMPLED BY (Please Print):

Paul Ledoux

LOGGED BY(signature):
DATE: 10-1-14 TIME: 1053

REVIEWED BY(signature):
DATE: 10-1-14 TIME: 1011

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Paul Ledoux	9.25.14	1550	2	MS	9/30/14	0800
3				4			
5				6			
7				8			
9				10			

6. PROJECT INFORMATION

Data Deliverables: [X] Standard [ ] CLP-like [ ] DOD [X] TO-15 [ ] Other
EDDs- Type:
ALS Field Services: [ ] Pickup [ ] Labor
Other:

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] MA [ ] other

Phone: 1- 717- 944- 5541

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 03Mar2011

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: CBI
Horizon WO#: 209945
Sample Delivery Group ID: _____
Log In By/Date: Bulk 10-1-14
(signature) _____
Number of Shipping containers received: 1

Project Name/#: VARION
Date/Time received: 9/30/14 0800
Received By: J. SMITH
Project Manager Review (date) 10-1-14
(signature) _____
Courier: FEDEX

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? ..... (YES) NO NA
   If YES, enter airbill numbers: 7900 5596 5001

Shipping Container Information:

2. Were shipping containers received without signs of tampering? ..... (YES) NO NA
   Comments_____
3. Were custody seals present and intact? ..... YES NO (NA)
4. Were custody seals numbers present? ..... YES NO (NA)
   List Custody Seal Numbers:

Sample Condition:

5. Were sample containers received intact without signs of tampering? ..... (YES) NO NA
   Comments_____

Chain of Custody:

6. Did COC arrive with the samples? ..... (YES) NO NA
7. Do sample ID/Sample Description(s) match samples submitted? ..... (YES) NO NA
8. Is date and time of collection listed on the COC for all samples? ..... (YES) NO NA
9. Is identification of sampler on COC? ..... (YES) NO NA
10. Are requested test method(s) on COC? ..... (YES) NO NA
11. Are necessary signatures on COC? ..... (YES) NO NA
12. Was Internal COC initiated? (should always be YES) ..... YES NO (NA)

Sample Integrity Usability:

13. Do sample containers match the COC? ..... (YES) NO NA
14. Were sample canisters received within 15 days of shipment to client ..... (YES) NO NA

Anomalies or Non-Conformances:_____

Rev. 2/2011

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental Project #: 2031945

Project Location: Varian RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2031945-001 to -003

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air x Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B x
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Jennifer M. Stanhope Lamoreux **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 10/13/2014

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State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder 2031945 **Project Name** Varian

QC Batch TO15 / 2577

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031945001

2081636

Parameter	Original Result	Qualifiers	Units	Spike Conc.
Acetone		U	ug/m3	
Acetone		U	ppbv	
Surrogate Recoveries				
4-Bromofluorobenzene				

METHOD BLANK 2081634

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
Acetone	ND	U	ug/m3	0.5		
Acetone	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		98	70-130

LABORATORY CONTROL SAMPLE 2081635

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
Acetone	0.3		ug/m3	0.5	59*	60-140
Acetone	0.12		ppbv	0.2	59*	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2031945 **Project Name** Varian

Surrogate Recoveries				
4-Bromofluorobenzene		%	104	70-130

QC Batch TO15 / 2579

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031945001 2031945002 2031945003

2082170

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	
1,2-Dibromoethane		U	ug/m3	
1,2-Dibromoethane		U	ppbv	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichlorobenzene		U	ppbv	
1,2-Dichloroethane		U	ppbv	
1,2-Dichloroethane		U	ug/m3	
1,2-Dichloropropane		U	ppbv	
1,2-Dichloropropane		U	ug/m3	
1,3-Dichlorobenzene		U	ug/m3	
1,3-Dichlorobenzene		U	ppbv	
1,4-Dichlorobenzene		U	ppbv	
1,4-Dichlorobenzene		U	ug/m3	
1,4-Dioxane		U	ug/m3	
1,4-Dioxane		U	ppbv	
2-Butanone		U	ug/m3	
2-Butanone		U	ppbv	
2-Hexanone		U	ug/m3	
2-Hexanone		U	ppbv	
4-Methyl-2-Pentanone(MIBK)		U	ug/m3	
4-Methyl-2-Pentanone(MIBK)		U	ppbv	
Acetone		U	ppbv	

This is an addendum to the Certificate of Analysis.

Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ug/m3
Bromodichloromethane	U	ppbv
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ppbv
Bromomethane	U	ug/m3
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ug/m3
Chloroform	U	ppbv
cis-1,2-Dichloroethene	U	ppbv
cis-1,2-Dichloroethene	U	ug/m3
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ug/m3
Ethylbenzene	U	ppbv
Hexachlorobutadiene	U	ppbv
Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ppbv
Methylene Chloride	U	ug/m3
mp-Xylene	U	ug/m3
mp-Xylene	U	ppbv
Naphthalene	U	ug/m3
Naphthalene	U	ppbv
o-Xylene	U	ug/m3
o-Xylene	U	ppbv
Styrene	U	ppbv
Styrene	U	ug/m3
Tetrachloroethene	U	ppbv
Tetrachloroethene	U	ug/m3
Toluene	U	ug/m3
Toluene	U	ppbv
trans-1,2-Dichloroethene	U	ppbv
trans-1,2-Dichloroethene	U	ug/m3
trans-1,3-Dichloropropene	U	ppbv

This is an addendum to the Certificate of Analysis.

trans-1,3-Dichloropropene	U	ug/m3	
Trichloroethene	U	ppbv	
Trichloroethene	U	ug/m3	
Vinyl Chloride	U	ppbv	
Vinyl Chloride	U	ug/m3	
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2082168

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ppbv	0.20		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,3-Dichlorobenzene	ND	U	ppbv	0.20		
1,3-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ppbv	0.20		
1,4-Dioxane	ND	U	ug/m3	0.7		
1,4-Dioxane	ND	U	ppbv	0.20		
2-Butanone	ND	U	ppbv	0.20		
2-Butanone	ND	U	ug/m3	0.6		
2-Hexanone	ND	U	ppbv	0.20		
2-Hexanone	ND	U	ug/m3	0.8		
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20		
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8		
Acetone	ND	U	ppbv	0.20		

Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ug/m3	2
Bromoform	ND	U	ppbv	0.20
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ug/m3	2
Chlorodibromomethane	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
Chloroform	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Hexachlorobutadiene	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
mp-Xylene	ND	U	ug/m3	2
mp-Xylene	ND	U	ppbv	0.40
Naphthalene	ND	U	ppbv	0.20
Naphthalene	ND	U	ug/m3	1
o-Xylene	ND	U	ppbv	0.20
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ug/m3	0.8
Styrene	ND	U	ppbv	0.20
Tetrachloroethene	ND	U	ug/m3	1
Tetrachloroethene	ND	U	ppbv	0.20
Toluene	ND	U	ug/m3	0.8
Toluene	ND	U	ppbv	0.20
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,2-Dichloroethene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ppbv	0.20

This is an addendum to the Certificate of Analysis.

trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ppbv	0.20		
Vinyl Chloride	ND	U	ug/m3	0.5		
Surrogate Recoveries						
4-Bromofluorobenzene			%		96	70-130

LABORATORY CONTROL SAMPLE 2082169

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	100	60-140
1,1,1-Trichloroethane	0.2		ppbv	0.2	100	60-140
1,1,2,2-Tetrachloroethane	0.22		ppbv	0.2	108	60-140
1,1,2,2-Tetrachloroethane	1		ug/m3	1	108	60-140
1,1,2-Trichloroethane	0.21		ppbv	0.2	105	60-140
1,1,2-Trichloroethane	1		ug/m3	1	105	60-140
1,1-Dichloroethane	0.2		ppbv	0.2	102	60-140
1,1-Dichloroethane	0.8		ug/m3	0.8	102	60-140
1,1-Dichloroethene	0.18		ppbv	0.2	88	60-140
1,1-Dichloroethene	0.7		ug/m3	0.8	88	60-140
1,2-Dibromoethane	0.21		ppbv	0.2	104	60-140
1,2-Dibromoethane	2		ug/m3	2	104	60-140
1,2-Dichlorobenzene	1		ug/m3	1	111	60-140
1,2-Dichlorobenzene	0.22		ppbv	0.2	111	60-140
1,2-Dichloroethane	0.21		ppbv	0.2	106	60-140
1,2-Dichloroethane	0.9		ug/m3	0.8	106	60-140
1,2-Dichloropropane	0.21		ppbv	0.2	106	60-140
1,2-Dichloropropane	1		ug/m3	0.9	106	60-140
1,3-Dichlorobenzene	0.23		ppbv	0.2	113	60-140
1,3-Dichlorobenzene	1		ug/m3	1	113	60-140
1,4-Dichlorobenzene	1		ug/m3	1	109	60-140
1,4-Dichlorobenzene	0.22		ppbv	0.2	109	60-140
1,4-Dioxane	0.13		ppbv	0.2	66	60-140
1,4-Dioxane	0.5		ug/m3	0.7	66	60-140
2-Butanone	0.19		ppbv	0.2	96	60-140
2-Butanone	0.6		ug/m3	0.6	96	60-140
2-Hexanone	0.17		ppbv	0.2	84	60-140
2-Hexanone	0.7		ug/m3	0.8	84	60-140
4-Methyl-2-Pentanone(MIBK)	0.6		ug/m3	0.8	73	60-140
4-Methyl-2-Pentanone(MIBK)	0.15		ppbv	0.2	73	60-140
Acetone	0.12		ppbv	0.2	60	60-140

Acetone	0.3	ug/m3	0.5	60	60-140
Benzene	0.21	ppbv	0.2	106	60-140
Benzene	0.7	ug/m3	0.6	106	60-140
Bromodichloromethane	0.19	ppbv	0.2	95	60-140
Bromodichloromethane	1	ug/m3	1	95	60-140
Bromoform	0.18	ppbv	0.2	92	60-140
Bromoform	2	ug/m3	2	92	60-140
Bromomethane	0.7	ug/m3	0.8	87	60-140
Bromomethane	0.17	ppbv	0.2	87	60-140
Carbon Tetrachloride	1	ug/m3	1	99	60-140
Carbon Tetrachloride	0.2	ppbv	0.2	99	60-140
Chlorobenzene	0.21	ppbv	0.2	105	60-140
Chlorobenzene	1	ug/m3	0.9	105	60-140
Chlorodibromomethane	0.19	ppbv	0.2	93	60-140
Chlorodibromomethane	2	ug/m3	2	93	60-140
Chloroform	0.22	ppbv	0.2	109	60-140
Chloroform	1	ug/m3	1	109	60-140
cis-1,2-Dichloroethene	0.7	ug/m3	0.8	94	60-140
cis-1,2-Dichloroethene	0.19	ppbv	0.2	94	60-140
cis-1,3-Dichloropropene	0.19	ppbv	0.2	93	60-140
cis-1,3-Dichloropropene	0.8	ug/m3	0.9	93	60-140
Ethylbenzene	0.19	ppbv	0.2	95	60-140
Ethylbenzene	0.8	ug/m3	0.9	95	60-140
Hexachlorobutadiene	0.16	ppbv	0.2	81	60-140
Hexachlorobutadiene	2	ug/m3	2	81	60-140
Methyl t-Butyl Ether	0.18	ppbv	0.2	91	60-140
Methyl t-Butyl Ether	0.7	ug/m3	0.7	91	60-140
Methylene Chloride	0.26	ppbv	0.2	132	60-140
Methylene Chloride	0.9	ug/m3	0.7	132	60-140
mp-Xylene	0.38	ppbv	0.4	96	60-140
mp-Xylene	2	ug/m3	2	96	60-140
Naphthalene	0.18	ppbv	0.2	92	60-140
Naphthalene	1	ug/m3	1	92	60-140
o-Xylene	0.18	ppbv	0.2	92	60-140
o-Xylene	0.8	ug/m3	0.9	92	60-140
Styrene	0.18	ppbv	0.2	89	60-140
Styrene	0.8	ug/m3	0.9	89	60-140
Tetrachloroethene	0.18	ppbv	0.2	91	60-140
Tetrachloroethene	1	ug/m3	1	91	60-140
Toluene	0.19	ppbv	0.2	96	60-140
Toluene	0.7	ug/m3	0.8	96	60-140
trans-1,2-Dichloroethene	0.8	ug/m3	0.8	100	60-140
trans-1,2-Dichloroethene	0.2	ppbv	0.2	100	60-140
trans-1,3-Dichloropropene	0.18	ppbv	0.2	92	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2031945 **Project Name** Varian

trans-1,3-Dichloropropene	0.8	ug/m3	0.9	92	60-140
Trichloroethene	0.18	ppbv	0.2	89	60-140
Trichloroethene	1	ug/m3	1	89	60-140
Vinyl Chloride	0.19	ppbv	0.2	96	60-140
Vinyl Chloride	0.5	ug/m3	0.5	96	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		101	70-130

QC Batch TO15 / 2580

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031945002 2031945003

METHOD BLANK 2082770

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ppbv	0.20		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,3-Dichlorobenzene	ND	U	ppbv	0.20		
1,3-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ppbv	0.20		
1,4-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dioxane	ND	U	ug/m3	0.7		
1,4-Dioxane	ND	U	ppbv	0.20		
2-Butanone	ND	U	ppbv	0.20		
2-Butanone	ND	U	ug/m3	0.6		

This is an addendum to the Certificate of Analysis.

2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ppbv	0.20
Bromoform	ND	U	ug/m3	2
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ug/m3	2
Chloroform	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7
mp-Xylene	ND	U	ppbv	0.40
mp-Xylene	ND	U	ug/m3	2
Naphthalene	ND	U	ppbv	0.20
Naphthalene	ND	U	ug/m3	1
o-Xylene	ND	U	ppbv	0.20
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ppbv	0.20
Styrene	ND	U	ug/m3	0.8
Tetrachloroethene	ND	U	ug/m3	1
Tetrachloroethene	ND	U	ppbv	0.20

This is an addendum to the Certificate of Analysis.

Toluene	ND	U	ppbv	0.20		
Toluene	ND	U	ug/m3	0.8		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ug/m3	0.5		
Vinyl Chloride	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		98	70-130

LABORATORY CONTROL SAMPLE 2082771

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	0.22		ppbv	0.2	112	60-140
1,1,1-Trichloroethane	1		ug/m3	1	112	60-140
1,1,2,2-Tetrachloroethane	0.25		ppbv	0.2	125	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	125	60-140
1,1,2-Trichloroethane	0.25		ppbv	0.2	125	60-140
1,1,2-Trichloroethane	1		ug/m3	1	125	60-140
1,1-Dichloroethane	0.25		ppbv	0.2	123	60-140
1,1-Dichloroethane	1		ug/m3	0.8	123	60-140
1,1-Dichloroethene	0.19		ppbv	0.2	97	60-140
1,1-Dichloroethene	0.8		ug/m3	0.8	97	60-140
1,2-Dibromoethane	0.23		ppbv	0.2	115	60-140
1,2-Dibromoethane	2		ug/m3	2	115	60-140
1,2-Dichlorobenzene	1		ug/m3	1	119	60-140
1,2-Dichlorobenzene	0.24		ppbv	0.2	119	60-140
1,2-Dichloroethane	0.26		ppbv	0.2	129	60-140
1,2-Dichloroethane	1		ug/m3	0.8	129	60-140
1,2-Dichloropropane	0.25		ppbv	0.2	124	60-140
1,2-Dichloropropane	1		ug/m3	0.9	124	60-140
1,3-Dichlorobenzene	0.24		ppbv	0.2	121	60-140
1,3-Dichlorobenzene	1		ug/m3	1	121	60-140
1,4-Dichlorobenzene	0.23		ppbv	0.2	117	60-140
1,4-Dichlorobenzene	1		ug/m3	1	117	60-140
1,4-Dioxane	0.5		ug/m3	0.7	72	60-140
1,4-Dioxane	0.14		ppbv	0.2	72	60-140
2-Butanone	0.23		ppbv	0.2	114	60-140
2-Butanone	0.7		ug/m3	0.6	114	60-140

2-Hexanone	0.19	ppbv	0.2	94	60-140
2-Hexanone	0.8	ug/m3	0.8	94	60-140
4-Methyl-2-Pentanone(MIBK)	0.2	ppbv	0.2	100	60-140
4-Methyl-2-Pentanone(MIBK)	0.8	ug/m3	0.8	100	60-140
Acetone	0.4	ug/m3	0.5	85	60-140
Acetone	0.17	ppbv	0.2	85	60-140
Benzene	0.24	ppbv	0.2	120	60-140
Benzene	0.8	ug/m3	0.6	120	60-140
Bromodichloromethane	0.25	ppbv	0.2	123	60-140
Bromodichloromethane	2	ug/m3	1	123	60-140
Bromoform	0.22	ppbv	0.2	109	60-140
Bromoform	2	ug/m3	2	109	60-140
Bromomethane	0.8	ug/m3	0.8	107	60-140
Bromomethane	0.21	ppbv	0.2	107	60-140
Carbon Tetrachloride	1	ug/m3	1	118	60-140
Carbon Tetrachloride	0.24	ppbv	0.2	118	60-140
Chlorobenzene	1	ug/m3	0.9	130	60-140
Chlorobenzene	0.26	ppbv	0.2	130	60-140
Chlorodibromomethane	0.22	ppbv	0.2	108	60-140
Chlorodibromomethane	2	ug/m3	2	108	60-140
Chloroform	0.26	ppbv	0.2	131	60-140
Chloroform	1	ug/m3	1	131	60-140
cis-1,2-Dichloroethene	0.22	ppbv	0.2	111	60-140
cis-1,2-Dichloroethene	0.9	ug/m3	0.8	111	60-140
cis-1,3-Dichloropropene	0.22	ppbv	0.2	112	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	112	60-140
Ethylbenzene	0.9	ug/m3	0.9	104	60-140
Ethylbenzene	0.21	ppbv	0.2	104	60-140
Hexachlorobutadiene	0.2	ppbv	0.2	100	60-140
Hexachlorobutadiene	2	ug/m3	2	100	60-140
Methyl t-Butyl Ether	0.21	ppbv	0.2	107	60-140
Methyl t-Butyl Ether	0.8	ug/m3	0.7	107	60-140
Methylene Chloride	0.28	ppbv	0.2	141*	60-140
Methylene Chloride	1	ug/m3	0.7	141*	60-140
mp-Xylene	0.42	ppbv	0.4	104	60-140
mp-Xylene	2	ug/m3	2	104	60-140
Naphthalene	0.19	ppbv	0.2	94	60-140
Naphthalene	1	ug/m3	1	94	60-140
o-Xylene	0.21	ppbv	0.2	104	60-140
o-Xylene	0.9	ug/m3	0.9	104	60-140
Styrene	0.19	ppbv	0.2	94	60-140
Styrene	0.8	ug/m3	0.9	94	60-140
Tetrachloroethene	2	ug/m3	1	114	60-140
Tetrachloroethene	0.23	ppbv	0.2	114	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2031945 **Project Name** Varian

Toluene	0.21	ppbv	0.2	106	60-140
Toluene	0.8	ug/m3	0.8	106	60-140
trans-1,2-Dichloroethene	0.22	ppbv	0.2	111	60-140
trans-1,2-Dichloroethene	0.9	ug/m3	0.8	111	60-140
trans-1,3-Dichloropropene	0.21	ppbv	0.2	105	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	105	60-140
Trichloroethene	0.21	ppbv	0.2	105	60-140
Trichloroethene	1	ug/m3	1	105	60-140
Vinyl Chloride	0.6	ug/m3	0.5	119	60-140
Vinyl Chloride	0.24	ppbv	0.2	119	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		101	70-130

QC Batch TO15 / 2582

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2031945002

2082772

Parameter	Original Result	Qualifiers	Units	Spike Conc.
2-Butanone		U	ug/m3	
2-Butanone		U	ppbv	
Tetrachloroethene		U	ppbv	
Tetrachloroethene		U	ug/m3	
Trichloroethene		U	ug/m3	
Trichloroethene		U	ppbv	
Surrogate Recoveries				
4-Bromofluorobenzene				

METHOD BLANK 2083354

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
2-Butanone	ND	U	ug/m3	0.6		
2-Butanone	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ug/m3	1		
Tetrachloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		

This is an addendum to the Certificate of Analysis.

Surrogate Recoveries					
4-Bromofluorobenzene		%		97	70-130

LABORATORY CONTROL SAMPLE 2083355

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
2-Butanone	0.7		ug/m3	0.6	119	60-140
2-Butanone	0.24		ppbv	0.2	119	60-140
Tetrachloroethene	2		ug/m3	1	121	60-140
Tetrachloroethene	0.24		ppbv	0.2	121	60-140
Trichloroethene	0.24		ppbv	0.2	119	60-140
Trichloroethene	1		ug/m3	1	119	60-140
Surrogate Recoveries						
4-Bromofluorobenzene			%		100	70-130

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2031945001	Bldg 3 SVE 1	TO-15	TO15 / 2577	TO-15	TO15 / 2577
2031945001	Bldg 3 SVE 1	TO-15	TO15 / 2579	TO-15	TO15 / 2579
2031945002	Bldg 3 SVE 3	TO-15	TO15 / 2579	TO-15	TO15 / 2579
2031945002	Bldg 3 SVE 3	TO-15	TO15 / 2580	TO-15	TO15 / 2580
2031945002	Bldg 3 SVE 3	TO-15	TO15 / 2582	TO-15	TO15 / 2582
2031945003	Bldg 3 SVE 4	TO-15	TO15 / 2579	TO-15	TO15 / 2579
2031945003	Bldg 3 SVE 4	TO-15	TO15 / 2580	TO-15	TO15 / 2580

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 150151.21

Prepared By: Dale Dailey
Date : 5/22/2014

Matrix: Air

Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : R1402251

Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
4/1/14	VOC TO-15		30 Days	4/7/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 4/7/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method. All initial and continuing calibrations were compliant.

Various compounds for all samples have been flagged with an "E" as being outside the calibration range of the instrument. The samples were repeated at dilutions and both sets of data have been reported out.

Reviewed By: Pernilla Haley, 6/9/14

April 11, 2014

Service Request No: R1402251

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly Air Samples/150151-05

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on April 2, 2014. For your reference, these analyses have been assigned our service request number **R1402251**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental Project #: 150151

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1402251-001-003

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air X Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B X
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes X No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

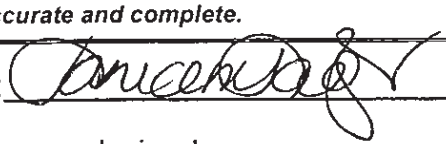
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: 

Position: Client Services Manager

Printed Name: Janice Jaeger

Date: 04/11/14

ALS Environmental

Client:	CB&I.	**Service Request No.:**	R1402251
Project:	Varian Beverly	**Project No.:**	150151-06
Sample Matrix:	Air	**Date Received:**	04/02/14

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS environmental. This report contains analytical results for samples designated for Tier II, MASS. CAM deliverables. When appropriate to the method, blank and LCS results have been reported with each analytical test.

Sample Receipt

CB&I air samples were collected on 04/01/14 and received at ALS in good condition as noted on the receipt and preservation check form. The samples were stored in the laboratory at room temperature prior to analysis. See the ALS case narrative for a cross-reference between Client ID and ALS Job #.

TO - 15 Air Analysis

Three air samples were analyzed for a site list of Volatile Organics by EPA method TO-15.

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method.

Various compounds for all samples have been flagged with an "E" as being outside the calibration range of the instrument. The samples were repeated at dilutions and both sets of data have been reported out.

All initial and continuing calibrations were compliant.

All surrogate standard recoveries were within QC limits.

The Method blanks were free of contamination.

The LCS recoveries were all within QC limits of 70 – 130 %.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402251

Lab ID	Client ID
R1402251-001	BLDG 5-5
R1402251-002	BLDG 5-6
R1402251-003	BLDG 8-1

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **08 JAN 2014**

Expires: **30 JUN 2014**

Oscar C. Parcarbo

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2013

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2013 Expiration Date 30 JUN 2014

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2013

M-NY032 **ALS ENVIRONMENTAL ROCHESTER**
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) **Effective Date** **01 JUL 2013** **Expiration Date** **30 JUN 2014**

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1545
Date Received: 4/ 2/14

Sample Name: BLDG 5-5
Lab Code: R1402251-001

Analytical Method: TO-15

Date Analyzed: 4/7/14 1149
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	5.4	14	14	5.7	5.7	U
74-83-9	Bromomethane	5.4	100	100	27	27	U
67-64-1	**Acetone**	5.4	**3900**	1200	**1700**	510	D
75-35-4	1,1-Dichloroethene	5.4	110	110	27	27	U
75-09-2	Methylene Chloride	5.4	91	91	26	26	U
156-60-5	trans-1,2-Dichloroethene	5.4	110	110	27	27	U
75-34-3	1,1-Dichloroethane	5.4	110	110	27	27	U
1634-04-4	Methyl tert-Butyl Ether	5.4	190	190	53	53	U
78-93-3	2-Butanone (MEK)	5.4	160	160	53	53	U
156-59-2	cis-1,2-Dichloroethene	5.4	110	110	27	27	U
67-66-3	Chloroform	5.4	130	130	27	27	U
107-06-2	1,2-Dichloroethane	5.4	110	110	27	27	U
71-55-6	1,1,1-Trichloroethane (TCA)	5.4	140	140	26	26	U
71-43-2	Benzene	5.4	84	84	26	26	U
56-23-5	Carbon Tetrachloride	5.4	17	17	2.7	2.7	U
78-87-5	1,2-Dichloropropane	5.4	120	120	27	27	U
75-27-4	Bromodichloromethane	5.4	36	36	5.4	5.4	U
79-01-6	Trichloroethene (TCE)	5.4	14	14	2.7	2.7	U
123-91-1	1,4-Dioxane	5.4	1200	1200	330	330	U
10061-01-5	cis-1,3-Dichloropropene	5.4	240	240	53	53	U
108-10-1	4-Methyl-2-pentanone (MIBK)	5.4	220	220	53	53	U
10061-02-6	trans-1,3-Dichloropropene	5.4	120	120	27	27	U
79-00-5	1,1,2-Trichloroethane	5.4	140	140	26	26	U
108-88-3	Toluene	5.4	99	99	26	26	U
591-78-6	2-Hexanone	5.4	110	110	26	26	U
124-48-1	Dibromochloromethane	5.4	46	46	5.4	5.4	U
106-93-4	1,2-Dibromoethane (EDB)	5.4	41	41	5.3	5.3	U
127-18-4	Tetrachloroethene (PCE)	5.4	19	19	2.8	2.8	U
108-90-7	Chlorobenzene	5.4	120	120	27	27	U
100-41-4	Ethylbenzene	5.4	230	230	53	53	U
179601-23-1	m,p-Xylenes	5.4	460	460	110	110	U
75-25-2	Bromoform	5.4	270	270	27	27	U
100-42-5	Styrene	5.4	230	230	53	53	U
95-47-6	o-Xylene	5.4	230	230	53	53	U
79-34-5	1,1,2,2-Tetrachloroethane	5.4	36	36	5.3	5.3	U
541-73-1	1,3-Dichlorobenzene	5.4	320	320	53	53	U
106-46-7	1,4-Dichlorobenzene	5.4	320	320	53	53	U

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1545
Date Received: 4/ 2/14

Sample Name: BLDG 5-5
Lab Code: R1402251-001

Analytical Method: TO-15

Date Analyzed: 4/7/14 1149
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	5.4	320	320	53	53	U
91-20-3	Naphthalene	5.4	480	480	92	92	U
87-68-3	Hexachlorobutadiene	5.4	720	720	68	68	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	96	70-130	4/7/14 1149	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1545
Date Received: 4/ 2/14

Sample Name: BLDG 5-5
Lab Code: R1402251-001
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1541
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	300	0.26	0.26	0.10	0.10	U
74-83-9	Bromomethane	300	1.9	1.9	0.48	0.48	U
67-64-1	**Acetone**	300	**3100**	22	**1300**	9.1	E
75-35-4	1,1-Dichloroethene	300	1.9	1.9	0.48	0.48	U
75-09-2	Methylene Chloride	300	1.6	1.6	0.47	0.47	U
156-60-5	trans-1,2-Dichloroethene	300	1.9	1.9	0.48	0.48	U
75-34-3	1,1-Dichloroethane	300	2.0	2.0	0.48	0.48	U
1634-04-4	Methyl tert-Butyl Ether	300	3.4	3.4	0.95	0.95	U
78-93-3	**2-Butanone (MEK)**	300	**95**	2.8	**32**	0.96	
156-59-2	cis-1,2-Dichloroethene	300	1.9	1.9	0.48	0.48	U
67-66-3	Chloroform	300	2.3	2.3	0.48	0.48	U
107-06-2	1,2-Dichloroethane	300	2.0	2.0	0.48	0.48	U
71-55-6	1,1,1-Trichloroethane (TCA)	300	2.6	2.6	0.48	0.48	U
71-43-2	Benzene	300	1.5	1.5	0.47	0.47	U
56-23-5	**Carbon Tetrachloride**	300	**0.41**	0.30	**0.065**	0.048	
78-87-5	1,2-Dichloropropane	300	2.2	2.2	0.48	0.48	U
75-27-4	Bromodichloromethane	300	0.65	0.65	0.097	0.097	U
79-01-6	**Trichloroethene (TCE)**	300	**0.79**	0.26	**0.15**	0.048	
123-91-1	1,4-Dioxane	300	22	22	6.0	6.0	U
10061-01-5	cis-1,3-Dichloropropene	300	4.3	4.3	0.95	0.95	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	300	**12**	3.9	**3.0**	0.95	
10061-02-6	trans-1,3-Dichloropropene	300	2.2	2.2	0.48	0.48	U
79-00-5	1,1,2-Trichloroethane	300	2.6	2.6	0.48	0.48	U
108-88-3	Toluene	300	1.8	1.8	0.47	0.47	U
591-78-6	2-Hexanone	300	2.0	2.0	0.48	0.48	U
124-48-1	Dibromochloromethane	300	0.82	0.82	0.097	0.097	U
106-93-4	1,2-Dibromoethane (EDB)	300	0.74	0.74	0.096	0.096	U
127-18-4	Tetrachloroethene (PCE)	300	0.35	0.35	0.051	0.051	U
108-90-7	Chlorobenzene	300	2.2	2.2	0.48	0.48	U
100-41-4	Ethylbenzene	300	4.1	4.1	0.95	0.95	U
179601-23-1	m,p-Xylenes	300	8.3	8.3	1.9	1.9	U
75-25-2	Bromoform	300	4.9	4.9	0.48	0.48	U
100-42-5	Styrene	300	4.1	4.1	0.96	0.96	U
95-47-6	o-Xylene	300	4.1	4.1	0.95	0.95	U
79-34-5	1,1,2,2-Tetrachloroethane	300	0.65	0.65	0.095	0.095	U
541-73-1	1,3-Dichlorobenzene	300	5.7	5.7	0.95	0.95	U
106-46-7	1,4-Dichlorobenzene	300	5.7	5.7	0.95	0.95	U

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1545
Date Received: 4/ 2/14

Sample Name: BLDG 5-5
Lab Code: R1402251-001
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1541
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	300	5.7	5.7	0.95	0.95	U
91-20-3	Naphthalene	300	8.7	8.7	1.7	1.7	U
87-68-3	Hexachlorobutadiene	300	13	13	1.2	1.2	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	93	70-130	4/7/14 1541	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1459
Date Received: 4/ 2/14

Sample Name: BLDG 5-6
Lab Code: R1402251-002

Analytical Method: TO-15

Date Analyzed: 4/7/14 1231
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.67

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	43	2.0	2.0	0.78	0.78	U
74-83-9	Bromomethane	43	14	14	3.7	3.7	U
67-64-1	**Acetone**	43	**440**	170	**190**	70	D
75-35-4	1,1-Dichloroethene	43	15	15	3.7	3.7	U
75-09-2	Methylene Chloride	43	13	13	3.6	3.6	U
156-60-5	trans-1,2-Dichloroethene	43	15	15	3.7	3.7	U
75-34-3	1,1-Dichloroethane	43	15	15	3.7	3.7	U
1634-04-4	Methyl tert-Butyl Ether	43	26	26	7.2	7.2	U
78-93-3	**2-Butanone (MEK)**	43	**30**	21	**10**	7.3	D
156-59-2	cis-1,2-Dichloroethene	43	15	15	3.7	3.7	U
67-66-3	Chloroform	43	18	18	3.7	3.7	U
107-06-2	1,2-Dichloroethane	43	15	15	3.7	3.7	U
71-55-6	1,1,1-Trichloroethane (TCA)	43	20	20	3.6	3.6	U
71-43-2	Benzene	43	12	12	3.6	3.6	U
56-23-5	Carbon Tetrachloride	43	2.3	2.3	0.37	0.37	U
78-87-5	1,2-Dichloropropane	43	17	17	3.6	3.6	U
75-27-4	Bromodichloromethane	43	5.0	5.0	0.74	0.74	U
79-01-6	**Trichloroethene (TCE)**	43	**5.1**	2.0	**0.94**	0.37	D
123-91-1	1,4-Dioxane	43	170	170	46	46	U
10061-01-5	cis-1,3-Dichloropropene	43	33	33	7.3	7.3	U
108-10-1	4-Methyl-2-pentanone (MIBK)	43	30	30	7.3	7.3	U
10061-02-6	trans-1,3-Dichloropropene	43	17	17	3.6	3.6	U
79-00-5	1,1,2-Trichloroethane	43	20	20	3.6	3.6	U
108-88-3	Toluene	43	14	14	3.6	3.6	U
591-78-6	2-Hexanone	43	15	15	3.6	3.6	U
124-48-1	Dibromochloromethane	43	6.3	6.3	0.74	0.74	U
106-93-4	1,2-Dibromoethane (EDB)	43	5.6	5.6	0.73	0.73	U
127-18-4	Tetrachloroethene (PCE)	43	2.6	2.6	0.39	0.39	U
108-90-7	Chlorobenzene	43	17	17	3.7	3.7	U
100-41-4	Ethylbenzene	43	31	31	7.2	7.2	U
179601-23-1	m,p-Xylenes	43	63	63	15	15	U
75-25-2	Bromoform	43	38	38	3.6	3.6	U
100-42-5	Styrene	43	31	31	7.3	7.3	U
95-47-6	o-Xylene	43	31	31	7.2	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	43	5.0	5.0	0.72	0.72	U
541-73-1	1,3-Dichlorobenzene	43	44	44	7.3	7.3	U
106-46-7	1,4-Dichlorobenzene	43	44	44	7.3	7.3	U

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Analytical Report

Client:	CB&I	**Service Request:**	R1402251
Project:	Varian Beverly Air Samples/150151-05	**Date Collected:**	4/ 1/14 1459
Sample Matrix:	Air	**Date Received:**	4/ 2/14
Sample Name:	BLDG 5-6		
Lab Code:	R1402251-002		

Analytical Method: TO-15

Date Analyzed: 4/7/14 1231
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.67

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	43	44	44	7.3	7.3	U
91-20-3	Naphthalene	43	66	66	13	13	U
87-68-3	Hexachlorobutadiene	43	99	99	9.3	9.3	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	96	70-130	4/7/14 1231	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1459
Date Received: 4/ 2/14

Sample Name: BLDG 5-6
Lab Code: R1402251-002
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1632
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.67

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	900	0.095	0.095	0.037	0.037	U
74-83-9	Bromomethane	900	0.68	0.68	0.17	0.17	U
67-64-1	**Acetone**	900	**450**	7.9	**190**	3.3	E
75-35-4	1,1-Dichloroethene	900	0.69	0.69	0.18	0.18	U
75-09-2	Methylene Chloride	900	0.60	0.60	0.17	0.17	U
156-60-5	**trans-1,2-Dichloroethene**	900	**1.9**	0.69	**0.48**	0.18	
75-34-3	1,1-Dichloroethane	900	0.71	0.71	0.18	0.18	U
1634-04-4	Methyl tert-Butyl Ether	900	1.2	1.2	0.35	0.35	U
78-93-3	**2-Butanone (MEK)**	900	**34**	1.0	**11**	0.35	
156-59-2	**cis-1,2-Dichloroethene**	900	**1.7**	0.69	**0.44**	0.18	
67-66-3	Chloroform	900	0.85	0.85	0.17	0.17	U
107-06-2	1,2-Dichloroethane	900	0.71	0.71	0.18	0.18	U
71-55-6	1,1,1-Trichloroethane (TCA)	900	0.95	0.95	0.17	0.17	U
71-43-2	Benzene	900	0.55	0.55	0.17	0.17	U
56-23-5	**Carbon Tetrachloride**	900	**0.36**	0.11	**0.057**	0.018	
78-87-5	1,2-Dichloropropane	900	0.80	0.80	0.17	0.17	U
75-27-4	Bromodichloromethane	900	0.24	0.24	0.035	0.035	U
79-01-6	**Trichloroethene (TCE)**	900	**5.2**	0.095	**0.97**	0.018	
123-91-1	1,4-Dioxane	900	7.9	7.9	2.2	2.2	U
10061-01-5	cis-1,3-Dichloropropene	900	1.6	1.6	0.35	0.35	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	900	**5.1**	1.4	**1.2**	0.35	
10061-02-6	trans-1,3-Dichloropropene	900	0.79	0.79	0.17	0.17	U
79-00-5	1,1,2-Trichloroethane	900	0.95	0.95	0.17	0.17	U
108-88-3	**Toluene**	900	**1.8**	0.65	**0.48**	0.17	
591-78-6	2-Hexanone	900	0.71	0.71	0.17	0.17	U
124-48-1	Dibromochloromethane	900	0.30	0.30	0.035	0.035	U
106-93-4	1,2-Dibromoethane (EDB)	900	0.27	0.27	0.035	0.035	U
127-18-4	**Tetrachloroethene (PCE)**	900	**0.81**	0.13	**0.12**	0.019	
108-90-7	Chlorobenzene	900	0.80	0.80	0.17	0.17	U
100-41-4	Ethylbenzene	900	1.5	1.5	0.35	0.35	U
179601-23-1	**m,p-Xylenes**	900	**3.2**	3.0	**0.74**	0.69	
75-25-2	Bromoform	900	1.8	1.8	0.17	0.17	U
100-42-5	Styrene	900	1.5	1.5	0.35	0.35	U
95-47-6	o-Xylene	900	1.5	1.5	0.35	0.35	U
79-34-5	1,1,2,2-Tetrachloroethane	900	0.24	0.24	0.034	0.034	U
541-73-1	1,3-Dichlorobenzene	900	2.1	2.1	0.35	0.35	U
106-46-7	1,4-Dichlorobenzene	900	2.1	2.1	0.35	0.35	U

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Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1459
Date Received: 4/ 2/14

Sample Name: BLDG 5-6
Lab Code: R1402251-002
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1632
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.67

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	900	2.1	2.1	0.35	0.35	U
91-20-3	Naphthalene	900	3.2	3.2	0.60	0.60	U
87-68-3	Hexachlorobutadiene	900	4.7	4.7	0.44	0.44	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	93	70-130	4/7/14 1632	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1512
Date Received: 4/ 2/14

Sample Name: BLDG 8-1
Lab Code: R1402251-003

Analytical Method: TO-15

Date Analyzed: 4/7/14 1314
Canister Dilution Factor: 1.44

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	118	0.73	0.73	0.29	0.29	U
74-83-9	Bromomethane	118	5.2	5.2	1.4	1.4	U
67-64-1	**Acetone**	118	**86**	61	**36**	26	D
75-35-4	1,1-Dichloroethene	118	5.4	5.4	1.4	1.4	U
75-09-2	Methylene Chloride	118	4.6	4.6	1.3	1.3	U
156-60-5	trans-1,2-Dichloroethene	118	5.4	5.4	1.4	1.4	U
75-34-3	1,1-Dichloroethane	118	5.5	5.5	1.4	1.4	U
1634-04-4	Methyl tert-Butyl Ether	118	9.6	9.6	2.7	2.7	U
78-93-3	2-Butanone (MEK)	118	7.9	7.9	2.7	2.7	U
156-59-2	cis-1,2-Dichloroethene	118	5.4	5.4	1.4	1.4	U
67-66-3	Chloroform	118	6.6	6.6	1.3	1.3	U
107-06-2	1,2-Dichloroethane	118	5.5	5.5	1.4	1.4	U
71-55-6	1,1,1-Trichloroethane (TCA)	118	7.3	7.3	1.3	1.3	U
71-43-2	Benzene	118	4.3	4.3	1.3	1.3	U
56-23-5	Carbon Tetrachloride	118	0.85	0.85	0.14	0.14	U
78-87-5	1,2-Dichloropropane	118	6.2	6.2	1.3	1.3	U
75-27-4	Bromodichloromethane	118	1.8	1.8	0.27	0.27	U
79-01-6	**Trichloroethene (TCE)**	118	**0.86**	0.73	**0.16**	0.14	D
123-91-1	1,4-Dioxane	118	61	61	17	17	U
10061-01-5	cis-1,3-Dichloropropene	118	12	12	2.7	2.7	U
108-10-1	4-Methyl-2-pentanone (MIBK)	118	11	11	2.7	2.7	U
10061-02-6	trans-1,3-Dichloropropene	118	6.1	6.1	1.3	1.3	U
79-00-5	1,1,2-Trichloroethane	118	7.3	7.3	1.3	1.3	U
108-88-3	Toluene	118	5.0	5.0	1.3	1.3	U
591-78-6	2-Hexanone	118	5.5	5.5	1.3	1.3	U
124-48-1	Dibromochloromethane	118	2.3	2.3	0.27	0.27	U
106-93-4	1,2-Dibromoethane (EDB)	118	2.1	2.1	0.27	0.27	U
127-18-4	Tetrachloroethene (PCE)	118	0.98	0.98	0.14	0.14	U
108-90-7	Chlorobenzene	118	6.2	6.2	1.4	1.4	U
100-41-4	Ethylbenzene	118	12	12	2.7	2.7	U
179601-23-1	m,p-Xylenes	118	23	23	5.4	5.4	U
75-25-2	Bromoform	118	14	14	1.3	1.3	U
100-42-5	Styrene	118	11	11	2.7	2.7	U
95-47-6	o-Xylene	118	12	12	2.7	2.7	U
79-34-5	1,1,2,2-Tetrachloroethane	118	1.8	1.8	0.27	0.27	U
541-73-1	1,3-Dichlorobenzene	118	16	16	2.7	2.7	U
106-46-7	1,4-Dichlorobenzene	118	16	16	2.7	2.7	U

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Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1512
Date Received: 4/ 2/14

Sample Name: BLDG 8-1
Lab Code: R1402251-003

Analytical Method: TO-15

Date Analyzed: 4/7/14 1314
Canister Dilution Factor: 1.44

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	118	16	16	2.7	2.7	U
91-20-3	Naphthalene	118	24	24	4.7	4.7	U
87-68-3	Hexachlorobutadiene	118	37	37	3.4	3.4	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	95	70-130	4/7/14 1314	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1512
Date Received: 4/ 2/14

Sample Name: BLDG 8-1
Lab Code: R1402251-003
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1405
Canister Dilution Factor: 1.44

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.086	0.086	0.034	0.034	U
74-83-9	Bromomethane	1000	0.62	0.62	0.16	0.16	U
67-64-1	**Acetone**	1000	**90**	7.2	**38**	3.0	E
75-35-4	1,1-Dichloroethene	1000	0.63	0.63	0.16	0.16	U
75-09-2	Methylene Chloride	1000	0.55	0.55	0.16	0.16	U
156-60-5	trans-1,2-Dichloroethene	1000	0.63	0.63	0.16	0.16	U
75-34-3	1,1-Dichloroethane	1000	0.65	0.65	0.16	0.16	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.1	1.1	0.32	0.32	U
78-93-3	**2-Butanone (MEK)**	1000	**2.6**	0.94	**0.87**	0.32	
156-59-2	cis-1,2-Dichloroethene	1000	0.63	0.63	0.16	0.16	U
67-66-3	Chloroform	1000	0.78	0.78	0.16	0.16	U
107-06-2	1,2-Dichloroethane	1000	0.65	0.65	0.16	0.16	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.86	0.86	0.16	0.16	U
71-43-2	Benzene	1000	0.50	0.50	0.16	0.16	U
56-23-5	**Carbon Tetrachloride**	1000	**0.28**	0.10	**0.044**	0.016	
78-87-5	1,2-Dichloropropane	1000	0.73	0.73	0.16	0.16	U
75-27-4	Bromodichloromethane	1000	0.22	0.22	0.032	0.032	U
79-01-6	**Trichloroethene (TCE)**	1000	**0.85**	0.086	**0.16**	0.016	
123-91-1	1,4-Dioxane	1000	7.2	7.2	2.0	2.0	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.4	1.4	0.32	0.32	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1000	1.3	1.3	0.32	0.32	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.72	0.72	0.16	0.16	U
79-00-5	1,1,2-Trichloroethane	1000	0.86	0.86	0.16	0.16	U
108-88-3	**Toluene**	1000	**0.86**	0.59	**0.23**	0.16	
591-78-6	2-Hexanone	1000	0.65	0.65	0.16	0.16	U
124-48-1	Dibromochloromethane	1000	0.27	0.27	0.032	0.032	U
106-93-4	1,2-Dibromoethane (EDB)	1000	0.24	0.24	0.032	0.032	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**0.14**	0.12	**0.021**	0.017	
108-90-7	Chlorobenzene	1000	0.73	0.73	0.16	0.16	U
100-41-4	Ethylbenzene	1000	1.4	1.4	0.32	0.32	U
179601-23-1	m,p-Xylenes	1000	2.8	2.8	0.63	0.63	U
75-25-2	Bromoform	1000	1.6	1.6	0.16	0.16	U
100-42-5	Styrene	1000	1.4	1.4	0.32	0.32	U
95-47-6	o-Xylene	1000	1.4	1.4	0.32	0.32	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.22	0.22	0.031	0.031	U
541-73-1	1,3-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U
106-46-7	1,4-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U

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Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: 4/ 1/14 1512
Date Received: 4/ 2/14

Sample Name: BLDG 8-1
Lab Code: R1402251-003
Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 4/7/14 1405
Canister Dilution Factor: 1.44

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U
91-20-3	Naphthalene	1000	2.9	2.9	0.55	0.55	U
87-68-3	Hexachlorobutadiene	1000	4.3	4.3	0.41	0.41	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	94	70-130	4/7/14 1405	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1403298-01

Analytical Method: TO-15

Date Analyzed: 4/7/14 1058

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
1634-04-4	Methyl tert-Butyl Ether	1000	0.79	0.79	0.22	0.22	U
78-93-3	2-Butanone (MEK)	1000	0.65	0.65	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
71-43-2	Benzene	1000	0.35	0.35	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
123-91-1	1,4-Dioxane	1000	5.0	5.0	1.4	1.4	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1000	0.90	0.90	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
108-88-3	Toluene	1000	0.41	0.41	0.11	0.11	U
591-78-6	2-Hexanone	1000	0.45	0.45	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
106-93-4	1,2-Dibromoethane (EDB)	1000	0.17	0.17	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
100-42-5	Styrene	1000	0.94	0.94	0.22	0.22	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U
541-73-1	1,3-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
106-46-7	1,4-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1403298-01

Analytical Method: TO-15

Date Analyzed: 4/7/14 1058

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
95-50-1	1,2-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
91-20-3	Naphthalene	1000	2.0	2.0	0.38	0.38	U
87-68-3	Hexachlorobutadiene	1000	3.0	3.0	0.28	0.28	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	96	70-130	4/7/14 1058	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Analyzed: 4/ 7/14

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 387172

Analyte Name	Lab Control Sample RQ1403298-02 Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	5.83	6.58	89	70 - 130
Bromomethane	8.51	9.80	87	70 - 130
Acetone	5.71	6.47	88	50 - 150
1,1-Dichloroethene	8.96	10.3	87	70 - 130
Methylene Chloride	9.09	8.94	102	70 - 130
trans-1,2-Dichloroethene	9.73	10.4	93	70 - 130
1,1-Dichloroethane	10.0	10.4	96	70 - 130
Methyl tert-Butyl Ether	8.89	9.55	93	70 - 130
2-Butanone (MEK)	7.44	7.81	95	70 - 130
cis-1,2-Dichloroethene	10.2	10.4	98	70 - 130
Chloroform	11.7	13.2	89	70 - 130
1,2-Dichloroethane	8.72	10.6	82	70 - 130
1,1,1-Trichloroethane (TCA)	11.8	14.3	82	70 - 130
Benzene	8.18	8.38	98	70 - 130
Carbon Tetrachloride	13.3	16.0	83	70 - 130
1,2-Dichloropropane	11.6	12.1	96	70 - 130
Bromodichloromethane	16.0	17.4	92	70 - 130
Trichloroethene (TCE)	13.1	14.0	93	70 - 130
1,4-Dioxane	11.9	9.37	128	50 - 150
cis-1,3-Dichloropropene	11.7	12.5	94	70 - 130
4-Methyl-2-pentanone (MIBK)	9.07	10.5	86	70 - 130
trans-1,3-Dichloropropene	9.96	10.9	91	70 - 130
1,1,2-Trichloroethane	13.6	14.5	94	70 - 130
Toluene	9.55	9.98	96	70 - 130
2-Hexanone	9.73	11.1	88	70 - 130
Dibromochloromethane	20.7	23.4	89	70 - 130
1,2-Dibromoethane (EDB)	18.5	20.0	93	70 - 130
Tetrachloroethene (PCE)	16.7	18.0	93	70 - 130
Chlorobenzene	11.8	12.3	96	70 - 130
Ethylbenzene	11.0	11.5	95	70 - 130
m,p-Xylenes	20.4	22.4	91	70 - 130
Bromoform	24.5	26.6	92	70 - 130
Styrene	10.0	11.1	91	70 - 130
o-Xylene	10.5	11.7	89	70 - 130
1,1,2,2-Tetrachloroethane	16.8	18.5	90	70 - 130
1,3-Dichlorobenzene	12.9	14.7	88	70 - 130
1,4-Dichlorobenzene	12.6	14.9	84	70 - 130
1,2-Dichlorobenzene	12.4	14.6	85	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly Air Samples/150151-05
Sample Matrix: Air

Service Request: R1402251
Date Analyzed: 4/ 7/14

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 387172

	Lab Control Sample RQ1403298-02			
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Naphthalene	7.59	11.0	69	50 - 150
Hexachlorobutadiene	23.1	23.5	99	50 - 150

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services — CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: Varian	Project Number: 150151-06
Project Manager: Raymond Cadorette	Report CC:
Company/Address: 150 Royall Dr. Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature:	Sampler's Printed Name: Dale Dailey

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TO-15 Site VOC List							REMARKS/ ALTERNATE DESCRIPTION
Bldg 5-5		4/1/14	15:45	air	1								X							Complete 2nd Run
Bldg 5-6		4/1/14	14:59	air	1								X							↓
Bldg 8-1		4/1/14	15:12	air	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
- Please complete second run on all samples.
- "QA/QC: MADEP CAM"

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
____1 day ____2 day ____3 day
____4 day ____5 day
X Standard

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

✓GISKEY
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #: 876613
BILL TO: CB&I

R1402251 7 Y
CB&I Environmental & Infrastructure
Varian Beverly Air Samples

STATE WHERE SAMPLES WERE COLLECTED: Massachusetts

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature:	Signature: Fed-ex	Signature:	Signature:	Signature:	Signature:
Printed Name: Dale Dailey	Printed Name: Fed-ex	Printed Name:	Printed Name: Gregori L. Esmeryan	Printed Name:	Printed Name:
Firm: CB&I	Firm: —	Firm:	Firm: AL3	Firm:	Firm:
Date/Time: 4/1/14 17:15	Date/Time: 4/1/14 17:45	Date/Time:	Date/Time: 4-2-14 09:25	Date/Time:	Date/Time:

Distribution: White - Lab Copy; Yellow - Return To Originator

Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number R14-2251

Cooler received on 4-2-14 by: RE **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	YES	(NO)
6.	Where did the bottles originate?	(ALS/ROC),	CLIENT
7.	Soil VOA samples received as:	Bulk Jar Encore	TerraCore Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	Air Canisters	

Is the temperature within 0° - 6° C?: Y N (NA) Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: NA- Air Canisters

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location SMO by RE on 04-2-14 at 09:31

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: ✓ 4/2/14

Cooler Breakdown: Date: 4/2/14 Time: 1301 by: dlm

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated ~~N/A~~ dlm 4/2/14

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____

Other Comments:

PC Secondary Review: MM 4/3/14

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 150148.05

Prepared By: Dale Dailey
Date : 6/2/2014

Matrix: Groundwater

Analyte Group : Volatile Organics
Analytical Method : SW-846 8260C

Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : R1402595

Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
4/2, 4/7, 4/8/14	SW-846 8260C	14 days	30 days	4/16/2014

Sample temperature within QC limits: Yes, 5.7 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EB-1
Trip Blank ID : TB-1

Method Blank: 8260C (1) 4/16/2014
8260C (2) 4/16/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:

Sample TB-1 has a collection date or 4/2/14 according to the COC, but is listed as 4/7/14 in the report.

Continuing Calibration Verification for 1,1,2,2-tetrachloroethane was outside QC Limits in batch 388291. Results were non-detect for these analytes, but associated data were given a UJ qualifier (samples: TB-1, EB-1, CL6-BR (68), CL6-DO (41), CL9-DO (32), OB17-DO (41) OB17-BR (95), MW-5R (17), MW-3R (30), and CL3-S (18)).

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Sample OB41-5 (13') was re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

Reviewed By: Pernilla Haley, 6/5/14

April 23, 2014

Service Request No: R1402595

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/150148-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on April 11, 2014. For your reference, these analyses have been assigned our service request number **R1402595**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CC: Pernilla Haley

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1402595
Project:	Varian Beverly	**Project Number:**	150148-05000000
Sample Matrix:	Water	**Date Received:**	04/11/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 04/07-08/14 and received at ALS in good condition at cooler temperatures of 5.5 – 5.7 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #.

Volatile Organics

Twenty water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples OB41-5 (13') was re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes except the following were > 20%:

- CCV from 04/15/14: 1,1,2,2-Tetrachloroethane

As noted on the attached CCV summary forms, these CCV's are flagged with an "*".

All Surrogate Standard recoveries were within QC limits.

All Bank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

All samples were analyzed within the required holding time of 14 days.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 150148

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1402595-001-020

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

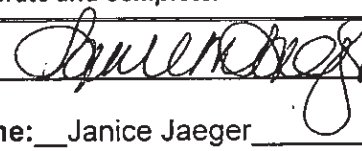
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: 

Position: Client Services Manager

Printed Name: Janice Jaeger

Date: 04/28/14

00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402595

Lab ID	Client ID
R1402595-001	TB-1
R1402595-002	EB-1
R1402595-003	CL6-BR (68')
R1402595-004	CL6-DO (41')
R1402595-005	CL9-DO (32')
R1402595-006	OB17-DO (41')
R1402595-007	OB17-BR (95')
R1402595-008	MW-5R (17')
R1402595-009	MW-3R (30')
R1402595-010	OB23-BR (80')
R1402595-011	CL3-S (18')
R1402595-012	MW-36 (52')
R1402595-013	OB4-DO (68')
R1402595-014	OB8-DO (78')
R1402595-015	OB41-5 (13')
R1402595-016	GZ-4 (12')
R1402595-017	OB18-DO (23')
R1402595-018	OB18-S(10')
R1402595-019	GZ-1 (12')
R1402595-020	AP15-S (12')

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **08 JAN 2014**

Expires: **30 JUN 2014**

Oscar C. Parcells

Director, Division of Environmental Analysis

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COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2013

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2013 Expiration Date 30 JUN 2014

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

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M-NY032 ALS ENVIRONMENTAL ROCHESTER
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NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2013 Expiration Date 30 JUN 2014

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1100
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 02:32
Sample Name:	TB-1	**Units:**	µg/L
Lab Code:	R1402595-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4779.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 02:32	
Dibromofluoromethane	99	70-130	4/16/14 02:32	
Toluene-d8	98	70-130	4/16/14 02:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402595
Date Collected: 4/ 7/14 0630
Date Received: 4/11/14
Date Analyzed: 4/16/14 03:04

Sample Name: EB-1
Lab Code: R1402595-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\041514\U4780.D\

Analysis Lot: 388291
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 03:04	
Dibromofluoromethane	99	70-130	4/16/14 03:04	
Toluene-d8	97	70-130	4/16/14 03:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 0730
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 03:36
Sample Name:	CL6-BR (68')	**Units:**	µg/L
Lab Code:	R1402595-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4781.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 03:36	
Dibromofluoromethane	98	70-130	4/16/14 03:36	
Toluene-d8	97	70-130	4/16/14 03:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 0830
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 04:08
Sample Name:	CL6-DO (41')	**Units:**	µg/L
Lab Code:	R1402595-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4782.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**4.5**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 04:08	
Dibromofluoromethane	100	70-130	4/16/14 04:08	
Toluene-d8	94	70-130	4/16/14 04:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 0900
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 04:40
Sample Name:	CL9-DO (32')	**Units:**	µg/L
Lab Code:	R1402595-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4783.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	**2.2**		2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**5.1**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 04:40	
Dibromofluoromethane	100	70-130	4/16/14 04:40	
Toluene-d8	97	70-130	4/16/14 04:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1000
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 05:12
Sample Name:	OB17-DO (41')	**Units:**	µg/L
Lab Code:	R1402595-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4784.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.6**		2.0	
79-01-6	Trichloroethene (TCE)	**7.8**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 05:12	
Dibromofluoromethane	99	70-130	4/16/14 05:12	
Toluene-d8	98	70-130	4/16/14 05:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1030
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 05:43
Sample Name:	OB17-BR (95')	**Units:**	µg/L
Lab Code:	R1402595-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4785.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**2.1**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**12**		2.0	
156-59-2	cis-1,2-Dichloroethene	**6.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 05:43	
Dibromofluoromethane	99	70-130	4/16/14 05:43	
Toluene-d8	98	70-130	4/16/14 05:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1100
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 06:15
Sample Name:	MW-5R (17')	**Units:**	µg/L
Lab Code:	R1402595-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4786.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**8.4**		2.0	
79-01-6	Trichloroethene (TCE)	**22**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**5.1**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	4/16/14 06:15	
Dibromofluoromethane	101	70-130	4/16/14 06:15	
Toluene-d8	100	70-130	4/16/14 06:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1130
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 06:47
Sample Name:	MW-3R (30')	**Units:**	µg/L
Lab Code:	R1402595-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4787.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**2.3**		2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 06:47	
Dibromofluoromethane	99	70-130	4/16/14 06:47	
Toluene-d8	98	70-130	4/16/14 06:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402595
Date Collected: 4/ 7/14 1200
Date Received: 4/11/14
Date Analyzed: 4/16/14 18:27

Sample Name: OB23-BR (80')
Lab Code: R1402595-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\041614\J4808.D\

Analysis Lot: 388443
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 18:27	
Dibromofluoromethane	102	70-130	4/16/14 18:27	
Toluene-d8	98	70-130	4/16/14 18:27	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1230
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 07:19
Sample Name:	CL3-S (18')	**Units:**	µg/L
Lab Code:	R1402595-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4788.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	9.7		2.0	
79-01-6	Trichloroethene (TCE)	17		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 07:19	
Dibromofluoromethane	101	70-130	4/16/14 07:19	
Toluene-d8	97	70-130	4/16/14 07:19	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1300
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 15:15
Sample Name:	MW-36 (52')	**Units:**	µg/L
Lab Code:	R1402595-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4802.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**950**		40	
79-01-6	Trichloroethene (TCE)	**2400**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	**180**		40	
156-59-2	cis-1,2-Dichloroethene	**1400**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 15:15	
Dibromofluoromethane	99	70-130	4/16/14 15:15	
Toluene-d8	98	70-130	4/16/14 15:15	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 7/14 1330
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 12:36
Sample Name:	OB4-DO (68')	**Units:**	µg/L
Lab Code:	R1402595-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4797.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**79**		2.0	
79-01-6	Trichloroethene (TCE)	**190**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**21**		2.0	
156-59-2	cis-1,2-Dichloroethene	**120**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 12:36	
Dibromofluoromethane	101	70-130	4/16/14 12:36	
Toluene-d8	97	70-130	4/16/14 12:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 0700
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 15:47
Sample Name:	OB8-DO (78')	**Units:**	µg/L
Lab Code:	R1402595-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4803.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**350**		40	
79-01-6	Trichloroethene (TCE)	**2600**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**1200**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/16/14 15:47	
Dibromofluoromethane	101	70-130	4/16/14 15:47	
Toluene-d8	99	70-130	4/16/14 15:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 0800
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 13:06
Sample Name:	OB41-5 (13')	**Units:**	µg/L
Lab Code:	R1402595-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4798.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**2.1**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**64**		2.0	
79-01-6	Trichloroethene (TCE)	**310**	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**82**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	4/16/14 13:06	
Dibromofluoromethane	101	70-130	4/16/14 13:06	
Toluene-d8	99	70-130	4/16/14 13:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 0800
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 17:55
Sample Name:	OB41-5 (13')	**Units:**	µg/L
Lab Code:	R1402595-015	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4807.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**59**	D	5.0	
79-01-6	Trichloroethene (TCE)	**280**	D	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	**76**	D	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	4/16/14 17:55	
Dibromofluoromethane	103	70-130	4/16/14 17:55	
Toluene-d8	100	70-130	4/16/14 17:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 0900
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 19:00
Sample Name:	GZ-4 (12')	**Units:**	µg/L
Lab Code:	R1402595-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4809.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**4.5**		2.0	
79-01-6	Trichloroethene (TCE)	**6.3**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**4.4**		2.0	
156-59-2	cis-1,2-Dichloroethene	**55**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	4/16/14 19:00	
Dibromofluoromethane	102	70-130	4/16/14 19:00	
Toluene-d8	99	70-130	4/16/14 19:00	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1000
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 19:32
Sample Name:	OB18-DO (23')	**Units:**	µg/L
Lab Code:	R1402595-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4810.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	17		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	13		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	4/16/14 19:32	
Dibromofluoromethane	100	70-130	4/16/14 19:32	
Toluene-d8	99	70-130	4/16/14 19:32	

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1100
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 13:38
Sample Name:	OB18-S(10')	**Units:**	µg/L
Lab Code:	R1402595-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4799.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	4/16/14 13:38	
Dibromofluoromethane	100	70-130	4/16/14 13:38	
Toluene-d8	98	70-130	4/16/14 13:38	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1200
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 20:04
Sample Name:	GZ-1 (12')	**Units:**	µg/L
Lab Code:	R1402595-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4811.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**13**		2.0	
79-01-6	Trichloroethene (TCE)	**47**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**8.9**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/16/14 20:04	
Dibromofluoromethane	101	70-130	4/16/14 20:04	
Toluene-d8	98	70-130	4/16/14 20:04	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1230
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/16/14 14:11
Sample Name:	AP15-S (12')	**Units:**	µg/L
Lab Code:	R1402595-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4800.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	4/16/14 14:11	
Dibromofluoromethane	100	70-130	4/16/14 14:11	
Toluene-d8	98	70-130	4/16/14 14:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	4/16/14 02:01
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1403834-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388291
Data File Name:	I:\ACQUDATA\msvoa12\Data\041514\J4778.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	4/16/14 02:01	
Dibromofluoromethane	100	70-130	4/16/14 02:01	
Toluene-d8	99	70-130	4/16/14 02:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402595
Project:	Varian Beverly/150148-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	4/16/14 12:02
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1403922-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388443
Data File Name:	I:\ACQUDATA\msvoa12\Data\041614\J4796.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	4/16/14 12:02	
Dibromofluoromethane	100	70-130	4/16/14 12:02	
Toluene-d8	98	70-130	4/16/14 12:02	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402595
Date Analyzed: 4/16/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 388291

Analyte Name	Lab Control Sample RQ1403834-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1403834-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	18.2	20.0	91	16.9	20.0	85	70 - 130	7	20
1,1,2,2-Tetrachloroethane	15.1	20.0	76	16.5	20.0	82	70 - 130	9	20
1,1,2-Trichloroethane	19.0	20.0	95	18.6	20.0	93	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	17.2	20.0	86	16.9	20.0	85	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	19.5	20.0	97	18.2	20.0	91	70 - 130	7	20
1,2-Dichloroethane	19.1	20.0	95	18.6	20.0	93	70 - 130	3	20
1,2-Dichloropropane	18.1	20.0	90	17.5	20.0	87	70 - 130	3	20
Acetone	21.0	20.0	105	19.5	20.0	98	40 - 160	7	20
Bromodichloromethane	19.8	20.0	99	19.4	20.0	97	70 - 130	2	20
Bromoform	18.2	20.0	91	17.5	20.0	87	70 - 130	4	20
Bromomethane	18.1	20.0	91	17.5	20.0	88	40 - 160	3	20
Carbon Tetrachloride	18.3	20.0	91	17.2	20.0	86	70 - 130	6	20
Chlorobenzene	18.9	20.0	94	17.8	20.0	89	70 - 130	6	20
Chloroethane	18.7	20.0	93	17.6	20.0	88	70 - 130	6	20
Chloroform	17.8	20.0	89	17.2	20.0	86	70 - 130	3	20
Chloromethane	17.2	20.0	86	16.6	20.0	83	40 - 160	4	20
Dibromochloromethane	19.5	20.0	98	18.8	20.0	94	70 - 130	4	20
Methylene Chloride	17.6	20.0	88	17.5	20.0	87	70 - 130	<1	20
Tetrachloroethene (PCE)	19.2	20.0	96	17.2	20.0	86	70 - 130	11	20
Trichloroethene (TCE)	21.9	20.0	109	19.5	20.0	98	70 - 130	11	20
Trichlorofluoromethane (CFC 11)	17.0	20.0	85	15.9	20.0	79	70 - 130	7	20
Vinyl Chloride	18.4	20.0	92	17.5	20.0	88	70 - 130	5	20
cis-1,2-Dichloroethene	17.9	20.0	90	17.4	20.0	87	70 - 130	3	20
cis-1,3-Dichloropropene	18.7	20.0	94	17.6	20.0	88	70 - 130	6	20
trans-1,2-Dichloroethene	17.9	20.0	90	16.8	20.0	84	70 - 130	6	20
trans-1,3-Dichloropropene	18.8	20.0	94	18.3	20.0	91	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402595
Date Analyzed: 4/16/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 388443

Analyte Name	Lab Control Sample RQ1403922-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1403922-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	18.5	20.0	92	17.7	20.0	88	70 - 130	4	20
1,1,2,2-Tetrachloroethane	16.9	20.0	84	17.8	20.0	89	70 - 130	5	20
1,1,2-Trichloroethane	18.6	20.0	93	19.4	20.0	97	70 - 130	4	20
1,1-Dichloroethane (1,1-DCA)	17.9	20.0	90	17.3	20.0	87	70 - 130	4	20
1,1-Dichloroethene (1,1-DCE)	19.2	20.0	96	19.0	20.0	95	70 - 130	<1	20
1,2-Dichloroethane	19.2	20.0	96	19.2	20.0	96	70 - 130	<1	20
1,2-Dichloropropane	18.3	20.0	92	17.3	20.0	86	70 - 130	6	20
Acetone	19.0	20.0	95	19.0	20.0	95	40 - 160	<1	20
Bromodichloromethane	19.9	20.0	99	19.5	20.0	97	70 - 130	2	20
Bromoform	18.3	20.0	91	18.7	20.0	94	70 - 130	2	20
Bromomethane	18.5	20.0	92	17.6	20.0	88	40 - 160	5	20
Carbon Tetrachloride	17.6	20.0	88	17.3	20.0	86	70 - 130	2	20
Chlorobenzene	18.8	20.0	94	18.1	20.0	91	70 - 130	3	20
Chloroethane	19.1	20.0	96	18.4	20.0	92	70 - 130	4	20
Chloroform	18.5	20.0	93	17.9	20.0	90	70 - 130	3	20
Chloromethane	17.5	20.0	88	17.6	20.0	88	40 - 160	<1	20
Dibromochloromethane	19.7	20.0	99	19.3	20.0	96	70 - 130	2	20
Methylene Chloride	17.9	20.0	89	17.8	20.0	89	70 - 130	<1	20
Tetrachloroethene (PCE)	18.3	20.0	91	17.4	20.0	87	70 - 130	5	20
Trichloroethene (TCE)	19.7	20.0	98	19.0	20.0	95	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	17.2	20.0	86	16.5	20.0	82	70 - 130	4	20
Vinyl Chloride	18.6	20.0	93	18.3	20.0	92	70 - 130	2	20
cis-1,2-Dichloroethene	18.1	20.0	91	17.8	20.0	89	70 - 130	2	20
cis-1,3-Dichloropropene	19.0	20.0	95	19.0	20.0	95	70 - 130	<1	20
trans-1,2-Dichloroethene	18.4	20.0	92	17.8	20.0	89	70 - 130	3	20
trans-1,3-Dichloropropene	19.9	20.0	99	19.7	20.0	98	70 - 130	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/150148-05000000

Service Request: R1402595
Date Analyzed: 4/15/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\041514\J4774.D\

Calibration Date: 3/12/14
Calibration ID: RC1400023
Analysis Lot: 388291
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	45.3	0.7112	0.6443	-9.4	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	39.9	0.5726	0.4565	-20.3 *	NA	± 20 %	Average RF
1,1,2-Trichloroethane	50.0	48.0	0.2220	0.2131	-4.0	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	43.8	0.8461	0.7414	-12.4	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	42.9	0.3628	0.3110	-14.3	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	48.5	0.3737	0.3628	-2.9	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	44.4	0.3148	0.2795	-11.2	NA	± 20 %	Average RF
Acetone	50.0	68.1	0.09920	0.1351	36.2	NA	± 60 %	Average RF
Bromodichloromethane	50.0	50.5	0.3677	0.3717	1.1	NA	± 20 %	Average RF
Bromoform	50.0	48.7	0.2840	0.2768	-2.5	NA	± 20 %	Average RF
Bromomethane	50.0	45.9	0.2881	0.2644	-8.2	NA	± 60 %	Average RF
Carbon Tetrachloride	50.0	45.5	0.1199	0.1090	-9.1	NA	± 20 %	Average RF
Chlorobenzene	50.0	46.7	0.8701	0.8119	-6.7	NA	± 20 %	Average RF
Chloroethane	50.0	49.0	0.2851	0.2791	-2.1	NA	± 20 %	Average RF
Chloroform	50.0	45.2	0.8292	0.7498	-9.6	NA	± 20 %	Average RF
Chloromethane	50.0	47.1	0.5146	0.4849	-5.8	NA	± 60 %	Average RF
Dibromochloromethane	50.0	51.6	0.2588	0.2671	3.2	NA	± 20 %	Average RF
Methylene Chloride	50.0	42.3	0.4753	0.4019	-15.5	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	44.9	0.2583	0.2319	-10.2	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	51.5	0.2982	0.3070	3.0	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	44.0	0.7340	0.6451	-12.1	NA	± 20 %	Average RF
Vinyl Chloride	50.0	49.1	0.4781	0.4694	-1.8	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	44.8	0.5073	0.4542	-10.5	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	48.7	0.4363	0.4246	-2.7	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	44.7	0.4546	0.4060	-10.7	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	51.2	0.3517	0.3602	2.4	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	52.2	0.4538	0.4739	4.4	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	51.8	0.2895	0.2997	3.5	NA	± 20 %	Average RF
Toluene-d8	50.0	49.6	1.216	1.207	-0.8	NA	± 20 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/150148-05000000

Service Request: R1402595
Date Analyzed: 4/16/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa12\Data\041614\J4792.D\

Calibration Date: 3/12/14
Calibration ID: RC1400023
Analysis Lot: 388443
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	44.3	0.7112	0.6297	-11.5	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	42.7	0.5726	0.4888	-14.6	NA	± 20 %	Average RF
1,1,2-Trichloroethane	50.0	48.2	0.2220	0.2141	-3.6	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	43.1	0.8461	0.7285	-13.9	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	42.6	0.3628	0.3092	-14.8	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	49.4	0.3737	0.3690	-1.3	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	44.7	0.3148	0.2814	-10.6	NA	± 20 %	Average RF
Acetone	50.0	60.0	0.09920	0.1190	20.0	NA	± 60 %	Average RF
Bromodichloromethane	50.0	49.7	0.3677	0.3657	-0.5	NA	± 20 %	Average RF
Bromoform	50.0	49.7	0.2840	0.2820	-0.7	NA	± 20 %	Average RF
Bromomethane	50.0	43.4	0.2881	0.2501	-13.2	NA	± 60 %	Average RF
Carbon Tetrachloride	50.0	45.5	0.1199	0.1090	-9.1	NA	± 20 %	Average RF
Chlorobenzene	50.0	46.3	0.8701	0.8055	-7.4	NA	± 20 %	Average RF
Chloroethane	50.0	48.2	0.2851	0.2749	-3.6	NA	± 20 %	Average RF
Chloroform	50.0	44.1	0.8292	0.7320	-11.7	NA	± 20 %	Average RF
Chloromethane	50.0	46.3	0.5146	0.4763	-7.5	NA	± 60 %	Average RF
Dibromochloromethane	50.0	51.5	0.2588	0.2663	2.9	NA	± 20 %	Average RF
Methylene Chloride	50.0	42.1	0.4753	0.3999	-15.9	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	45.1	0.2583	0.2328	-9.9	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	48.6	0.2982	0.2899	-2.8	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	45.5	0.7340	0.6680	-9.0	NA	± 20 %	Average RF
Vinyl Chloride	50.0	49.0	0.4781	0.4684	-2.0	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	44.6	0.5073	0.4521	-10.9	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	50.7	0.4363	0.4421	1.3	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	43.6	0.4546	0.3960	-12.9	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	53.4	0.3517	0.3756	6.8	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	53.1	0.4538	0.4816	6.1	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	51.3	0.2895	0.2969	2.6	NA	± 20 %	Average RF
Toluene-d8	50.0	50.0	1.216	1.217	0.0	NA	± 20 %	Average RF

Columbia Analytical Services — CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 4

Project Name: Varian Beverly	Project Number: 150148-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@CBI.com
Sampler's Signature: Daniel C. Leahy	Sampler's Printed Name: DANIEL C. LEAHY

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0

Preservative Key: 0. NONE; 1. HCL; 2. HNO_3; 3. H_2SO_4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. $NaHSO_4$; 8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS		GC/MS VOA's 8260 ☐ 624 ☐ CLP	GC/MS SVOA's 8270 ☐ 625	GC VOA's 8021 ☐ 601/602	PESTICIDES 8081 ☐ 608	PCB's 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Chloride						REMARKS/ ALTERNATE DESCRIPTION
TB-1		4/2/14	1100	GW	3	3											BY	LAB	(2)	
EB-1		4/7/14	0630	GW	3	3														
CL6-BR (68')		4/7/14	0730		3	3														
CL6-DO (41')		4/7/14	0830		3	3														
CL9-DO (32')		4/7/14	0900		3	3														
OB17-DO (41')		4/7/14	1000		3	3														
OB17-BR (95')		4/7/14	1030		3	3														
MW-5R (17')		4/7/14	1100		3	3														
MW-3R (30')		4/7/14	1130		3	3														
OB23-BR (80')		4/7/14	1200	✓	3	3														

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
✓ Standard

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata ✓ Yes _____ No

INVOICE INFORMATION
PO #: 873489
BILL TO: CB&I

R1402595 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

STATE WHERE SAMPLES WERE COLLECTED: MASS

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature: Daniel C. Leahy	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: DANIEL C. LEAHY	Printed Name: J. Swan	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: CB&I	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 4/10/14 1430	Date/Time: 4/11/14 0845	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

Columbia Analytical Services — CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax)

Project Name: Varian Beverly	Project Number: 150148-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@CBI.com
Sampler's Signature:	Sampler's Printed Name: David C. Leahy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+ Mn	Chloride	REMARKS/ ALTERNATE DESCRIPTION
CL3-S (18')		4/7/14	1230	GW	3	3								
MW-36 (52')		4/7/14	1300		3	3								
OB4-DD (68')		4/7/14	1330		3	3								
OB8-DD (78')		4/8/14	0700		3	3								
OB4I-S (13')		4/8/14	0800		3	3								
GZ-4 (12')		4/8/14	0900		3	3								
B18-DD (23')		4/8/14	1000		3	3								
B18-S (10')		4/8/14	1100		3	3								
GZ-1 (12')		4/8/14	1200		3	3								
AP15-S (12')		4/8/14	1230		3	3								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw
Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 873489
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED: NJ 5

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: David Leahy	Printed Name: J. Sewell	Printed Name	Printed Name	Printed Name	Printed Name
Firm: CBI	Firm: ACS	Firm	Firm	Firm	Firm
Date/Time: 4/10/14 1430	Date/Time: 4/11/14 0845	Date/Time	Date/Time	Date/Time	Date/Time

R1402595 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

Janice Jaeger

From: Haley, Pernilla [pernilla.haley@cbi.com]
Sent: Monday, April 14, 2014 10:53 AM
To: Janice Jaeger
Cc: Cadorette, Raymond
Subject: FW: Sample Confirmation from ALS Environmental for Varian Beverly (R1402595)
Attachments: SampleConfirmation-R1402595.pdf

On the last page the sample IDs should be OB18-DO(23) and OB18-S(10) The "O" is missing in the sample ID at the start of the ID.
Thanks, Pernilla

-----Original Message-----
From: Cadorette, Raymond
Sent: Monday, April 14, 2014 10:24 AM
To: Haley, Pernilla
Subject: FW: Sample Confirmation from ALS Environmental for Varian Beverly (R1402595)

Raymond J. Cadorette
Project Manager
Environmental & Infrastructure
Tel: +1 617 589 6102
Cell: +1 774 571 1183
Fax: +1 617 589 5496
raymond.cadorette@cbi.com

CB&I
150 Royall Street
Canton, MA 02021
www.CBI.com

-----Original Message-----
From: Janice.Jaeger@alsglobal.com [mailto:Janice.Jaeger@alsglobal.com]
Sent: Monday, April 14, 2014 5:22 AM
To: Cadorette, Raymond
Subject: Sample Confirmation from ALS Environmental for Varian Beverly (R1402595)

00038

Cooler Receipt and Preservation Check Form

Project/Client CB&I Folder Number 414-2595

Cooler received on 4/11 by: JES **COURIER:** ALS ~~UPS~~ FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	~~YES~~	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	~~YES~~	NO
3.	Did all bottles arrive in good condition (unbroken)?	~~YES~~	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	~~NO~~ N/A
5.	Were **Ice** or **Ice packs** present?	~~YES~~	NO
6.	Where did the bottles originate?	~~ALS/ROC~~, CLIENT	

		Bulk Jar	Encore	TerraCore	Lab5035set	~~N/A~~
7.	Soil VOA samples received as:					
8.	Temperature of cooler(s) upon receipt:	5.7	5.5			
	Is the temperature within 0° - 6° C?:	~~Y~~ N	~~Y~~ N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: 4/11/14 0905

Thermometer ID: ~~IR GUN#3~~ / IR GUN#4 Reading From: ~~Temp Blank~~ / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location room by JES on 4/11/14 at 0906

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JMJ 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 0804 by: JFS

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	~~YES~~	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	~~NO~~
3.	Were correct containers used for the tests indicated?	~~YES~~	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		~~N/A~~

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				~
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*	4112120	3/15

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 4-002-003

Other Comments:

labels on Samples 17, 18, 20 do not match the ID's on COC.

PC Secondary Review: JMJ 4/22/14

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 150148.05

Prepared By: Dale Dailey

Date : 6/2/2014

Matrix: Groundwater

Analyte Group : Volatile Organics
Metals
Chloride

Analytical Method : SW-846 8260C
6010 C
SM 4500-CL-E

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1402598

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
4/8-4/10/14	SW-846 8260C	14 days	10 days	4/17, 4/18/14
4/8-4/10/14	6010 C	180 Days	180 Days	4/16, 4/17/14
4/8-4/10/14	SM 4500-CL-E	28 Days	28 Days	4/22/14

Sample temperature within QC limits: Yes, 5.7 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No

If no, list sample ID where range was exceeded: See Notes

Equipment Field Blank ID : EB-2, EB-3
Trip Blank ID : NA

Method Blank:	SW-846 8260C	4/17, 4/18/14
	6010 C	4/16, 4/17/14
	SM 4500-CL-E	4/22/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Sample CL10-s (12'), was re-analyzed at larger dilutions to bring the target analytes within the calibration range of the method.
Both dilutions were reported with analytes over the range flagged with an "E" and the diluted analytes flagged with a "D"

All LCS and LCSD recoveries were within QC limits. All RPD values were acceptable except the Acetone RPD in batch 388778 on 4/17/14, which has been flagged with an "*". The data was not impacted since the analytical results were non-detect for these analytes in these batches.

Reviewed By: Pernilla Haley, 6/9/14

April 23, 2014

Service Request No: R1402598

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/150148-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on April 11, 2014. For your reference, these analyses have been assigned our service request number **R1402598**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CC: Pernilla Haley

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company
www.alsglobal.com

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1402598
Project:	Varian Beverly	**Project Number:**	150148-05000000
Sample Matrix:	Water	**Date Received:**	04/11/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 04/08-10/14 and received at ALS in good condition at cooler temperatures of 5.5 – 5.7 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #.

Volatile Organics

Twenty water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples CL10-S (12') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits. All RPD's were acceptable except the Acetone RPD on 04/17/14. All outlying QC has been flagged with an "*". No data was affected.

All samples were analyzed within the required holding time of 14 days.

Inorganic Analyses

Three water samples were analyzed for Chloride by SM3400-Cl-E and Soluble Iron and Manganese by method 6010C. Soluble Metals were filtered in the field.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402598

Lab ID	Client ID
R1402598-001	OB5-BR (100')
R1402598-002	OB5-DO (80')
R1402598-003	CL3-DO (71')
R1402598-004	W-1 (10')
R1402598-005	OB42-S (14')
R1402598-006	MW-34 (62')
R1402598-007	EB-2
R1402598-008	CULVERT OUTFALL
R1402598-009	OB6-BR (99')
R1402598-010	OB6-DO (65')
R1402598-011	CL8-DO (51')
R1402598-012	CL10-S (12')
R1402598-013	CL10-DO (30')
R1402598-014	CL10-BR (44')
R1402598-015	OB16-BR (20')
R1402598-016	OB16-S (15')
R1402598-017	MW2-32 TOZER (17')
R1402598-018	CL4-DO (28')
R1402598-019	CL4-BR (54')
R1402598-020	EB-3

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **08 JAN 2014**

Expires: **30 JUN 2014**

Oscar C. Parcarbo

Director, Division of Environmental Analysis

00006

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2013

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2013 Expiration Date 30 JUN 2014

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2013

M-NY032 **ALS ENVIRONMENTAL ROCHESTER**
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) **Effective Date** **01 JUL 2013** **Expiration Date** **30 JUN 2014**

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1330
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/17/14 17:11
Sample Name:	OB5-BR (100')	**Units:**	µg/L
Lab Code:	R1402598-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388728
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8480.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**4.2**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**8.4**		2.0	
156-59-2	cis-1,2-Dichloroethene	**16**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/17/14 17:11	
Dibromofluoromethane	96	70-130	4/17/14 17:11	
Toluene-d8	99	70-130	4/17/14 17:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402598
Date Collected: 4/ 8/14 1400
Date Received: 4/11/14

Sample Name: OB5-DO (80')
Lab Code: R1402598-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**32.4**		mg/L	1.0	1	NA	4/22/14 13:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1400
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	OB5-DO (80')		
Lab Code:	R1402598-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**300**		µg/L	100	1	4/15/14	4/17/14 00:25	
Manganese, Dissolved	6010C	**226**		µg/L	10	1	4/15/14	4/17/14 14:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 8/14 1400
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/18/14 20:00
Sample Name:	OB5-DO (80')	**Units:**	µg/L
Lab Code:	R1402598-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388863
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\041814\J4897.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**590**		20	
79-01-6	Trichloroethene (TCE)	**1800**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	**78**		20	
156-59-2	cis-1,2-Dichloroethene	**1700**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	4/18/14 20:00	
Dibromofluoromethane	102	70-130	4/18/14 20:00	
Toluene-d8	99	70-130	4/18/14 20:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water

Service Request: R1402598
Date Collected: 4/ 9/14 0730
Date Received: 4/11/14

Sample Name: CL3-DO (71')
Lab Code: R1402598-003

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**12.4**		mg/L	1.0	1	NA	4/22/14 13:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 0730
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	CL3-DO (71')		
Lab Code:	R1402598-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	4/15/14	4/17/14 00:31	
Manganese, Dissolved	6010C	99		µg/L	10	1	4/15/14	4/17/14 14:43	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 0730
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/17/14 17:49
Sample Name:	CL3-DO (71')	**Units:**	µg/L
Lab Code:	R1402598-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388728
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8481.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	16		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	4/17/14 17:49	
Dibromofluoromethane	97	70-130	4/17/14 17:49	
Toluene-d8	99	70-130	4/17/14 17:49	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 0830
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/18/14 07:08
Sample Name:	W-1 (10')	**Units:**	µg/L
Lab Code:	R1402598-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388729
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8502.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**33**		20	
79-01-6	Trichloroethene (TCE)	**980**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**420**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	4/18/14 07:08	
Dibromofluoromethane	95	70-130	4/18/14 07:08	
Toluene-d8	99	70-130	4/18/14 07:08	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 0930
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/18/14 07:46
Sample Name:	OB42-S (14')	**Units:**	µg/L
Lab Code:	R1402598-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388729
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8503.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**82**		40	
79-01-6	Trichloroethene (TCE)	**2400**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**960**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	4/18/14 07:46	
Dibromofluoromethane	96	70-130	4/18/14 07:46	
Toluene-d8	99	70-130	4/18/14 07:46	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 1030
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/18/14 08:24
Sample Name:	MW-34 (62')	**Units:**	µg/L
Lab Code:	R1402598-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388729
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8504.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	**130**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**1300**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	4/18/14 08:24	
Dibromofluoromethane	95	70-130	4/18/14 08:24	
Toluene-d8	98	70-130	4/18/14 08:24	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 1100
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/17/14 15:54
Sample Name:	EB-2	**Units:**	µg/L
Lab Code:	R1402598-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388728
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8478.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	4/17/14 15:54	
Dibromofluoromethane	96	70-130	4/17/14 15:54	
Toluene-d8	95	70-130	4/17/14 15:54	

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Analytical Report

Client:	CB&I	**Service Request:**	R1402598
Project:	Varian Beverly/150148-05000000	**Date Collected:**	4/ 9/14 1145
Sample Matrix:	Water	**Date Received:**	4/11/14
		Date Analyzed:	4/17/14 18:27
Sample Name:	CULVERT OUTFALL	**Units:**	µg/L
Lab Code:	R1402598-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	388728
Data File Name:	I:\ACQUDATA\MSVOA7\DATA\041714\K8482.D\	**Instrument Name:**	R-MS-07
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**8.5**		2.0	
79-01-6	Trichloroethene (TCE)	**43**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**43**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	4/17/14 18:27	
Dibromofluoromethane	94	70-130	4/17/14 18:27	
Toluene-d8	97	70-130	4/17/14 18:27	