

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 1230
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 19:05

Sample Name: OB6-BR (99')
 Lab Code: R1402598-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8483.D\

Analysis Lot: 388728
 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)	39		2.0	
79-01-6	Trichloroethene (TCE)	110		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	17		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 19:05	
Dibromofluoromethane	93	70-130	4/17/14 19:05	
Toluene-d8	98	70-130	4/17/14 19:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: OB6-DO (65')
Lab Code: R1402598-010

Service Request: R1402598
Date Collected: 4/9/14 1300
Date Received: 4/11/14

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)	32.7	mg/L	1.0	1	NA	4/22/14 13:05	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB6-DO (65')
 Lab Code: R1402598-010

Service Request: R1402598
 Date Collected: 4/9/14 1300
 Date Received: 4/11/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	110		µg/L	100	1	4/15/14	4/17/14 00:38	
Manganese, Dissolved	6010C	130		µg/L	10	1	4/15/14	4/17/14 14:49	

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 1300
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 19:28

Sample Name: OB6-DO (65')
 Lab Code: R1402598-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA12\DATA\041814\J4896.D\

Analysis Lot: 388863
 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)	51		5.0	
79-01-6	Trichloroethene (TCE)	140		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	13		5.0	
156-59-2	cis-1,2-Dichloroethene	390		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	100	70-130	4/18/14 19:28	
Dibromofluoromethane	102	70-130	4/18/14 19:28	
Toluene-d8	96	70-130	4/18/14 19:28	

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 1330
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 19:43

Sample Name: CL8-DO (51')
 Lab Code: R1402598-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8484.D\

Analysis Lot: 388728
 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 19:43	
Dibromofluoromethane	94	70-130	4/17/14 19:43	
Toluene-d8	98	70-130	4/17/14 19:43	

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: 4/10/14 0700
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 20:21

Sample Name: CL10-S (12')
 Lab Code: R1402598-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8485.D\

Analysis Lot: 388728
 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)	1300	E	2.0	
79-01-6	Trichloroethene (TCE)	130		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	46		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 20:21	
Dibromofluoromethane	94	70-130	4/17/14 20:21	
Toluene-d8	98	70-130	4/17/14 20:21	

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: 4/10/14 0700
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 20:32

Sample Name: CL10-S (12')
 Lab Code: R1402598-012
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\041814\J4898.D\

Analysis Lot: 388863
 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)	1800	D	20	
79-01-6	Trichloroethene (TCE)	150	D	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	47	D	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	99	70-130	4/18/14 20:32	
Dibromofluoromethane	102	70-130	4/18/14 20:32	
Toluene-d8	98	70-130	4/18/14 20:32	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: CL10-DO (30')
 Lab Code: R1402598-013

Service Request: R1402598
 Date Collected: 4/10/14 0800
 Date Received: 4/11/14

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)	50.1	mg/L	1.0	1	NA	4/22/14 13:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: CL10-DO (30')
 Lab Code: R1402598-013

Service Request: R1402598
 Date Collected: 4/10/14 0800
 Date Received: 4/11/14

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 00:44	
Manganese, Dissolved	6010C	178000		µg/L	2000	200	4/15/14	4/17/14 14:56	

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: 4/10/14 0800
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 18:55

Sample Name: CL10-DO (30')
 Lab Code: R1402598-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\041814VJ4895.D\

Analysis Lot: 388863
 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	98	70-130	4/18/14 18:55	
Dibromofluoromethane	100	70-130	4/18/14 18:55	
Toluene-d8	95	70-130	4/18/14 18:55	



Analytical Report

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

Service Request: R1402598
 Date Collected: 4/10/14 0900
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 21:37

Sample Name: CL10-BR (44)
 Lab Code: R1402598-014

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8487.D\

Analysis Lot: 388728
 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	97	70-130	4/17/14 21:37	
Dibromofluoromethane	94	70-130	4/17/14 21:37	
Toluene-d8	99	70-130	4/17/14 21:37	

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: 4/10/14 0930
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 22:15

Sample Name: OB16-BR (20')
 Lab Code: R1402598-015

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8488.D

Analysis Lot: 388728
 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	95	70-130	4/17/14 22:15	
Dibromofluoromethane	94	70-130	4/17/14 22:15	
Toluene-d8	98	70-130	4/17/14 22:15	

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: 4/10/14 1000
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 04:35

Sample Name: OB16-S (15')
 Lab Code: R1402598-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8498.D\

Analysis Lot: 388729
 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	95	70-130	4/18/14 04:35	
Dibromofluoromethane	92	70-130	4/18/14 04:35	
Toluene-d8	99	70-130	4/18/14 04:35	

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: 4/10/14 1030
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 09:41

Sample Name: MW2-32 TOZER (17')
 Lab Code: R1402598-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8506.D\

Analysis Lot: 388729
 Instrument Name: R-MS-07
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	4900		100	
79-01-6	Trichloroethene (TCE)	970		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	2200		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	4/18/14 09:41	
Dibromofluoromethane	95	70-130	4/18/14 09:41	
Toluene-d8	99	70-130	4/18/14 09:41	

Analytical Report

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

Service Request: R1402598
 Date Collected: 4/10/14 1100
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 05:13

Sample Name: CL4-DO (28')
 Lab Code: R1402598-018

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\041714\K8499.D\

Analysis Lot: 388729
 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)	45		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	3.6		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	4/18/14 05:13	
Dibromofluoromethane	93	70-130	4/18/14 05:13	
Toluene-d8	99	70-130	4/18/14 05:13	

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: 4/10/14 1130
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 05:51

Sample Name: CL4-BR (54')
 Lab Code: R1402598-019

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8500.D\

Analysis Lot: 388729
 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	65		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	4/18/14 05:51	
Dibromofluoromethane	93	70-130	4/18/14 05:51	
Toluene-d8	98	70-130	4/18/14 05:51	



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: 4/10/14 1200
 Date Received: 4/11/14
 Date Analyzed: 4/17/14 16:33

Sample Name: EB-3
 Lab Code: R1402598-020

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8479.D

Analysis Lot: 388728
 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	95	70-130	4/17/14 16:33	
Dibromofluoromethane	95	70-130	4/17/14 16:33	
Toluene-d8	98	70-130	4/17/14 16:33	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402598-MB

Service Request: R1402598
 Date Collected: NA
 Date Received: NA
 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)	1.0 U	mg/L	1.0	1	NA	4/22/14 13:02	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402598-MB

Service Request: R1402598
 Date Collected: NA
 Date Received: NA

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	4/16/14 23:10	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	4/15/14	4/17/14 14:25	

Analytical Report

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

Service Request: R1402598
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/17/14 14:00

Sample Name: Method Blank
 Lab Code: RQ1403957-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\041714\K8475.D\

Analysis Lot: 388728
 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	95	70-130	4/17/14 14:00	
Dibromofluoromethane	95	70-130	4/17/14 14:00	
Toluene-d8	100	70-130	4/17/14 14:00	



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: NA
 Date Received: NA
 Date Analyzed: 4/18/14 03:19

Sample Name: Method Blank
 Lab Code: RQ1403965-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041714\K8496.D

Analysis Lot: 388729
 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	97	70-130	4/18/14 03:19	
Dibromofluoromethane	95	70-130	4/18/14 03:19	
Toluene-d8	99	70-130	4/18/14 03:19	

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: NA
 Date Received: NA
 Date Analyzed: 4/18/14 14:06

Sample Name: Method Blank
 Lab Code: RQ1403837-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814U4886.D\

Analysis Lot: 388863
 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	4/18/14 14:06	
Dibromofluoromethane	102	70-130	4/18/14 14:06	
Toluene-d8	98	70-130	4/18/14 14:06	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

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

Service Request: R1402598
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402598-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Chloride	SM 4500-Cl-E-1997(20)	23.8	25.0	95	86 - 110

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.

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

Service Request: R1402598
 Date Analyzed: 4/16/14 -
 4/17/14

Lab Control Sample Summary
 Inorganic Parameters

Units: µg/L
 Basis: NA

Lab Control Sample
 R1402598-LCS

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1040	1000	104	80 - 120
Manganese, Dissolved	6010C	489	500	98	80 - 120

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.



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

Service Request: R1402598
 Date Analyzed: 4/17/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388728

Analyte Name	Lab Control Sample RQ1403957-03			Duplicate Lab Control Sample RQ1403957-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	19.2	20.0	96	19.5	20.0	98	70 - 130	2	20
1,1,2,2-Tetrachloroethane	20.2	20.0	101	20.3	20.0	101	70 - 130	<1	20
1,1,2-Trichloroethane	19.7	20.0	99	20.2	20.0	101	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	20.3	20.0	102	20.5	20.0	102	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	23.7	20.0	119	23.5	20.0	117	70 - 130	1	20
1,2-Dichloroethane	18.9	20.0	94	19.2	20.0	96	70 - 130	2	20
1,2-Dichloropropane	21.4	20.0	107	22.1	20.0	111	70 - 130	3	20
Acetone	18.7	20.0	94	13.6	20.0	68	40 - 160	32 *	20
Bromodichloromethane	19.9	20.0	100	20.1	20.0	101	70 - 130	<1	20
Bromoform	20.3	20.0	102	19.6	20.0	98	70 - 130	4	20
Bromomethane	20.6	20.0	103	20.7	20.0	104	40 - 160	<1	20
Carbon Tetrachloride	19.5	20.0	98	20.1	20.0	100	70 - 130	3	20
Chlorobenzene	20.7	20.0	103	20.8	20.0	104	70 - 130	<1	20
Chloroethane	20.7	20.0	104	21.3	20.0	106	70 - 130	3	20
Chloroform	19.5	20.0	97	19.5	20.0	97	70 - 130	<1	20
Chloromethane	21.3	20.0	106	21.8	20.0	109	40 - 160	2	20
Dibromochloromethane	20.2	20.0	101	19.9	20.0	99	70 - 130	1	20
Methylene Chloride	20.5	20.0	102	20.7	20.0	104	70 - 130	1	20
Tetrachloroethene (PCE)	21.7	20.0	109	21.4	20.0	107	70 - 130	2	20
Trichloroethene (TCE)	20.8	20.0	104	21.1	20.0	105	70 - 130	1	20
Trichlorofluoromethane (CFC 11)	19.3	20.0	96	19.7	20.0	98	70 - 130	2	20
Vinyl Chloride	21.4	20.0	107	21.3	20.0	106	70 - 130	<1	20
cis-1,2-Dichloroethene	20.5	20.0	103	20.7	20.0	103	70 - 130	<1	20
cis-1,3-Dichloropropene	19.7	20.0	98	20.1	20.0	100	70 - 130	2	20
trans-1,2-Dichloroethene	21.6	20.0	108	21.2	20.0	106	70 - 130	2	20
trans-1,3-Dichloropropene	19.4	20.0	97	19.3	20.0	96	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.

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

Service Request: R1402598
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388729

Analyte Name	Lab Control Sample RQ1403965-03			Duplicate Lab Control Sample RQ1403965-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.8	20.0	94	18.4	20.0	92	70 - 130	2	20
1,1,2,2-Tetrachloroethane	17.5	20.0	88	18.3	20.0	91	70 - 130	4	20
1,1,2-Trichloroethane	20.0	20.0	100	20.3	20.0	101	70 - 130	1	20
1,1-Dichloroethane (1,1-DCA)	20.6	20.0	103	20.1	20.0	100	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	22.3	20.0	112	22.5	20.0	113	70 - 130	<1	20
1,2-Dichloroethane	18.5	20.0	92	17.8	20.0	89	70 - 130	4	20
1,2-Dichloropropane	21.2	20.0	106	20.8	20.0	104	70 - 130	2	20
Acetone	18.0	20.0	90	19.9	20.0	100	40 - 160	10	20
Bromodichloromethane	19.6	20.0	98	19.5	20.0	98	70 - 130	<1	20
Bromoform	19.4	20.0	97	20.2	20.0	101	70 - 130	4	20
Bromomethane	18.7	20.0	94	19.4	20.0	97	40 - 160	4	20
Carbon Tetrachloride	19.1	20.0	96	18.5	20.0	92	70 - 130	3	20
Chlorobenzene	20.6	20.0	103	20.7	20.0	104	70 - 130	<1	20
Chloroethane	20.7	20.0	103	20.2	20.0	101	70 - 130	2	20
Chloroform	19.4	20.0	97	18.9	20.0	95	70 - 130	2	20
Chloromethane	21.1	20.0	105	21.2	20.0	106	40 - 160	<1	20
Dibromochloromethane	19.4	20.0	97	20.3	20.0	102	70 - 130	4	20
Methylene Chloride	20.0	20.0	100	20.5	20.0	102	70 - 130	2	20
Tetrachloroethene (PCE)	21.3	20.0	107	21.2	20.0	106	70 - 130	<1	20
Trichloroethene (TCE)	22.1	20.0	110	21.5	20.0	107	70 - 130	3	20
Trichlorofluoromethane (CFC 11)	18.3	20.0	91	18.2	20.0	91	70 - 130	<1	20
Vinyl Chloride	20.3	20.0	101	20.3	20.0	102	70 - 130	<1	20
cis-1,2-Dichloroethene	20.2	20.0	101	20.7	20.0	104	70 - 130	3	20
cis-1,3-Dichloropropene	19.0	20.0	95	18.6	20.0	93	70 - 130	2	20
trans-1,2-Dichloroethene	21.0	20.0	105	21.1	20.0	105	70 - 130	<1	20
trans-1,3-Dichloropropene	18.9	20.0	94	18.5	20.0	92	70 - 130	2	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.

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

Service Request: R1402598
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388863

Analyte Name	Lab Control Sample RQ1403837-03			Duplicate Lab Control Sample RQ1403837-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.2	20.0	101	20.5	20.0	102	70 - 130	2	20
1,1,2,2-Tetrachloroethane	20.2	20.0	101	20.6	20.0	103	70 - 130	2	20
1,1,2-Trichloroethane	20.8	20.0	104	19.7	20.0	99	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	19.5	20.0	98	19.9	20.0	99	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	22.7	20.0	114	23.4	20.0	117	70 - 130	3	20
1,2-Dichloroethane	21.3	20.0	106	20.9	20.0	104	70 - 130	2	20
1,2-Dichloropropane	19.7	20.0	98	20.2	20.0	101	70 - 130	3	20
Acetone	24.7	20.0	123	24.5	20.0	122	40 - 160	<1	20
Bromodichloromethane	21.4	20.0	107	22.0	20.0	110	70 - 130	3	20
Bromoform	21.1	20.0	105	21.3	20.0	107	70 - 130	1	20
Bromomethane	22.7	20.0	114	22.1	20.0	111	40 - 160	3	20
Carbon Tetrachloride	19.6	20.0	98	20.4	20.0	102	70 - 130	4	20
Chlorobenzene	21.1	20.0	105	21.2	20.0	106	70 - 130	<1	20
Chloroethane	21.7	20.0	109	21.6	20.0	108	70 - 130	<1	20
Chloroform	19.5	20.0	98	20.3	20.0	102	70 - 130	4	20
Chloromethane	21.1	20.0	106	22.0	20.0	110	40 - 160	4	20
Dibromochloromethane	21.9	20.0	110	22.2	20.0	111	70 - 130	1	20
Methylene Chloride	19.4	20.0	97	19.8	20.0	99	70 - 130	2	20
Tetrachloroethene (PCE)	21.1	20.0	106	21.5	20.0	108	70 - 130	2	20
Trichloroethene (TCE)	20.8	20.0	104	21.8	20.0	109	70 - 130	5	20
Trichlorofluoromethane (CFC 11)	20.3	20.0	102	20.5	20.0	102	70 - 130	<1	20
Vinyl Chloride	22.9	20.0	114	23.6	20.0	118	70 - 130	3	20
cis-1,2-Dichloroethene	19.7	20.0	98	20.3	20.0	101	70 - 130	3	20
cis-1,3-Dichloropropene	20.2	20.0	101	20.1	20.0	101	70 - 130	<1	20
trans-1,2-Dichloroethene	19.8	20.0	99	20.2	20.0	101	70 - 130	2	20
trans-1,3-Dichloropropene	22.1	20.0	110	22.4	20.0	112	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.



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 4 OF 4

Project Name Varian Beverly		Project Number 150148-05000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		E-mail Raymond.Cadorette@CBI.com		NUMBER OF CONTAINERS	
Phone # 617-589-6102		Sampler's Signature <i>Michael Leahy</i>		Sampler's Printed Name Michael Leahy	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	TIME	MATRIX	
CL8-DO (51')		4/9/14	1330	GW	3
CL10-S (12')		4/10/14	0700		3
CL10-DO (30')		4/10/14	0800		5
CL10-BR (44')		4/10/14	0900		3
OB16-BR (20')		4/10/14	0930		3
OB16-S (15')		4/10/14	1000		3
MW2-32 TOZOR (27')		4/10/14	1030		3
CL4-DO (28')		4/10/14	1100		3
CL4-BR (54')		4/10/14	1130		3
EB-3		4/10/14	1200		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.		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day Standard		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Report	
		<input type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/> 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard		<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + OC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + OC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Report	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE		PO #: 873489 BILL TO: CB&I	

STATE WHERE SAMPLES WERE COLLECTED: MASS		RECEIVED BY		RELINQUISHED BY	
Signature <i>Michael Leahy</i>	Signature <i>Michael Leahy</i>	Signature <i>Michael Leahy</i>	Signature <i>Michael Leahy</i>	Signature <i>Michael Leahy</i>	Signature <i>Michael Leahy</i>
Printed Name Michael Leahy	Printed Name Michael Leahy	Printed Name Michael Leahy	Printed Name Michael Leahy	Printed Name Michael Leahy	Printed Name Michael Leahy
Firm CBI	Firm CBI	Firm CBI	Firm CBI	Firm CBI	Firm CBI
Date/Time 4/10/14 14:00	Date/Time 4/11/14 0845	Date/Time 4/11/14 0845	Date/Time 4/11/14 0845	Date/Time 4/11/14 0845	Date/Time 4/11/14 0845

R1402598
 CB&I Environmental & Infrastructure
 Vertical Brewery

7 Y



Cooler Receipt and Preservation Check Form

Project/Client CB&I Folder Number 214-2598

Cooler received on 4/11 by: JS 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/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
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
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 JS on 4/11/14 at 0906
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: [Signature] 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 0848 by: JS

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	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO							
≥12	NaOH									
≤2	HNO ₃	<input checked="" type="checkbox"/>		B032L134B	2/15					
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	4112120	3/15					

Bottle lot numbers: 4-002-003
Other Comments:

PC Secondary Review: [Signature] 4/22/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



April 23, 2014

Service Request No: R1402601

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

Laboratory Results for: Varian Beverly/150148-05000000

Dear Mr. Cadorette:

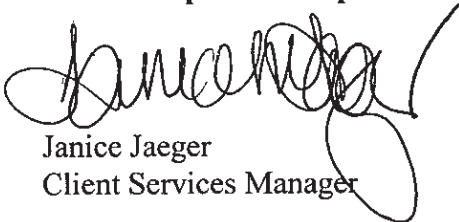
Enclosed are the results of the sample(s) submitted to our laboratory on April 11, 2014. For your reference, these analyses have been assigned our service request number **R1402601**.

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

Page 1 of 67

CC: Pernilla Haley

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402601
Project Number: 150148-05000000
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 04/09-10/14 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 nine 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 RW-22 (104), OB 12 DO (47), MW-16 (35), AP12-S (26) and AP12-DO (48) 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 except Bromomethane was outside limits high on the 04/21/14 LCS. All RPD's were acceptable except various RPD's were outside limits on 04/19/14 RPD (Run #388873). 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

Four water samples were analyzed for Chloride by SM3400-CI-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.

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):
R1402601-001-029

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/>	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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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"?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input type="checkbox"/> Yes	<input type="checkbox"/> 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)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

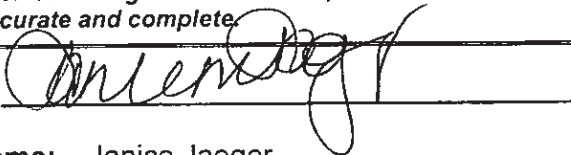
Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹

¹All 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: R1402601

<u>Lab ID</u>	<u>Client ID</u>
R1402601-001	MW-14-A (58)
R1402601-002	OB14-DO (55)
R1402601-003	RW-22 (104)
R1402601-004	OB11 BR (86)
R1402601-005	OB11 DO (60)
R1402601-006	OB12 S (27)
R1402601-007	MW-13 (41)
R1402601-008	OB12 DO (47)
R1402601-009	TB-2
R1402601-010	OB9-DO (92)
R1402601-011	OB9-BR (117)
R1402601-012	STR-3
R1402601-013	UNNAMED STREAM
R1402601-014	BW-5 (9)
R1402601-015	BW-6 (13)
R1402601-016	BW-8 (13)
R1402601-017	BW-9 (12)
R1402601-018	MW-9A (13)
R1402601-019	B-3 (12)
R1402601-020	AP13-S (16)
R1402601-021	MW-8 (17)
R1402601-022	MW-5 (21)
R1402601-023	MW-4 (25)
R1402601-024	MW-16 (35)
R1402601-025	OB10-S (29)
R1402601-026	OB10-BR (72)
R1402601-027	AP12-S (26)
R1402601-028	AP12-DO (48)
R1402601-029	AP12-BR (73)

00004

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

RIGHT SOLUTIONS | RIGHT PARTNER

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.

A handwritten signature in cursive script, reading "Oscar C. Parcells".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

**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

<u>Analytes</u>	<u>Methods</u>
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/150148-05000000
 Sample Matrix: Water

Service Request: R1402601
 Date Collected: 4/ 9/14 1100
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 20:28

Sample Name: MW-14-A (58)
 Lab Code: R1402601-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7711.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 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)	3.1		2.0	
79-01-6	Trichloroethene (TCE)	57		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	190		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	90	70-130	4/19/14 20:28	
Dibromofluoromethane	99	70-130	4/19/14 20:28	
Toluene-d8	97	70-130	4/19/14 20:28	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1130
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 20:06

Sample Name: OB14-DO (55)
 Lab Code: R1402601-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7664.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 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)	110		20	
79-01-6	Trichloroethene (TCE)	1300		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	170		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	96	70-130	4/18/14 20:06	
Dibromofluoromethane	98	70-130	4/18/14 20:06	
Toluene-d8	99	70-130	4/18/14 20:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/ 9/14 1200
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 20:37

Sample Name: RW-22 (104)
 Lab Code: R1402601-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041814\F7665.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	4.0	U	4.0	
79-01-6	Trichloroethene (TCE)	35		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	11		4.0	
156-59-2	cis-1,2-Dichloroethene	540	E	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/18/14 20:37	
Dibromofluoromethane	98	70-130	4/18/14 20:37	
Toluene-d8	97	70-130	4/18/14 20:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1200
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 20:58

Sample Name: RW-22 (104)
 Lab Code: R1402601-003
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041914\F7712.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	34	D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	11	D	10	
156-59-2	cis-1,2-Dichloroethene	520	D	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	4/19/14 20:58	
Dibromofluoromethane	97	70-130	4/19/14 20:58	
Toluene-d8	97	70-130	4/19/14 20:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1230
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 21:07

Sample Name: OB11 BR (86)
 Lab Code: R1402601-004

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7666.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 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)	5.5		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	35		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	6.7		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/18/14 21:07	
Dibromofluoromethane	96	70-130	4/18/14 21:07	
Toluene-d8	98	70-130	4/18/14 21:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1300
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 21:38

Sample Name: OB11 DO (60)
 Lab Code: R1402601-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7667.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 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)	91		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	20		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	4/18/14 21:38	
Dibromofluoromethane	96	70-130	4/18/14 21:38	
Toluene-d8	98	70-130	4/18/14 21:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1330
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 21:29

Sample Name: OB12 S (27)
 Lab Code: R1402601-006

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7713.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.2		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	2.9		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)	160		2.0	
79-01-6	Trichloroethene (TCE)	96		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	94	70-130	4/19/14 21:29	
Dibromofluoromethane	98	70-130	4/19/14 21:29	
Toluene-d8	98	70-130	4/19/14 21:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: MW-13 (41)
Lab Code: R1402601-007

Service Request: R1402601
Date Collected: 4/9/14 1430
Date Received: 4/11/14

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)	506		mg/L	10	10	NA	4/22/14 13:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: MW-13 (41)
 Lab Code: R1402601-007

Service Request: R1402601
 Date Collected: 4/ 9/14 1430
 Date Received: 4/11/14

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 00:50	
Manganese, Dissolved	6010C	23000		µg/L	100	10	4/15/14	4/17/14 15:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/9/14 1430
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 22:39

Sample Name: MW-13 (41)
 Lab Code: R1402601-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7669.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	190		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	9.1		5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.1		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	230		5.0	
108-90-7	Chlorobenzene	5.2		5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	360		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)	14		5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	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	5.0	U	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	93	70-130	4/18/14 22:39	
Dibromofluoromethane	94	70-130	4/18/14 22:39	
Toluene-d8	98	70-130	4/18/14 22:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB12 DO (47)
 Lab Code: R1402601-008

Service Request: R1402601
 Date Collected: 4/9/14 1400
 Date Received: 4/11/14

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)	39.4		mg/L	1.0	1	NA	4/22/14 13:07	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB12 DO (47)
 Lab Code: R1402601-008

Service Request: R1402601
 Date Collected: 4/9/14 1400
 Date Received: 4/11/14

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 00:57	
Manganese, Dissolved	6010C	176		µg/L	10	1	4/15/14	4/17/14 15:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/ 9/14 1400
 Date Received: 4/11/14
 Date Analyzed: 4/18/14 23:09

Sample Name: OB12 DO (47)
 Lab Code: R1402601-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7670.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 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)	5.9		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	59		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)	1700	E	2.0	
79-01-6	Trichloroethene (TCE)	5300	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	5.3		2.0	
156-59-2	cis-1,2-Dichloroethene	3400	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	110		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	70-130	4/18/14 23:09	
Dibromofluoromethane	99	70-130	4/18/14 23:09	
Toluene-d8	98	70-130	4/18/14 23:09	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/ 9/14 1400
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 16:08

Sample Name: OB12 DO (47)
 Lab Code: R1402601-008
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7739.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 Dilution Factor: 250

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	
79-34-5	1,1,2,2-Tetrachloroethane	500	U	500	
79-00-5	1,1,2-Trichloroethane	500	U	500	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	
107-06-2	1,2-Dichloroethane	500	U	500	
78-87-5	1,2-Dichloropropane	500	U	500	
67-64-1	Acetone	2500	U	2500	
75-27-4	Bromodichloromethane	500	U	500	
75-25-2	Bromoform	500	U	500	
74-83-9	Bromomethane	500	U	500	
56-23-5	Carbon Tetrachloride	500	U	500	
108-90-7	Chlorobenzene	500	U	500	
75-00-3	Chloroethane	500	U	500	
67-66-3	Chloroform	500	U	500	
74-87-3	Chloromethane	500	U	500	
124-48-1	Dibromochloromethane	500	U	500	
75-09-2	Methylene Chloride	500	U	500	
127-18-4	Tetrachloroethene (PCE)	2000	D	500	
79-01-6	Trichloroethene (TCE)	28000	D	500	
75-69-4	Trichlorofluoromethane (CFC 11)	500	U	500	
75-01-4	Vinyl Chloride	500	U	500	
156-59-2	cis-1,2-Dichloroethene	16000	D	500	
10061-01-5	cis-1,3-Dichloropropene	500	U	500	
156-60-5	trans-1,2-Dichloroethene	500	U	500	
10061-02-6	trans-1,3-Dichloropropene	500	U	500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/21/14 16:08	
Dibromofluoromethane	98	70-130	4/21/14 16:08	
Toluene-d8	98	70-130	4/21/14 16:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 0730
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 03:13

Sample Name: TB-2
 Lab Code: R1402601-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7678.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	95	70-130	4/19/14 03:13	
Dibromofluoromethane	99	70-130	4/19/14 03:13	
Toluene-d8	98	70-130	4/19/14 03:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 0800
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 03:44

Sample Name: OB9-DO (92)
 Lab Code: R1402601-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041814\F7679.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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)	40	U	40	
79-01-6	Trichloroethene (TCE)	40	U	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	1900		40	
156-59-2	cis-1,2-Dichloroethene	2300		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	93	70-130	4/19/14 03:44	
Dibromofluoromethane	96	70-130	4/19/14 03:44	
Toluene-d8	98	70-130	4/19/14 03:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 0830
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 04:14

Sample Name: OB9-BR (117)
 Lab Code: R1402601-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7680.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 Dilution Factor: 25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	110		50	
79-01-6	Trichloroethene (TCE)	110		50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	740		50	
156-59-2	cis-1,2-Dichloroethene	4600		50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	4/19/14 04:14	
Dibromofluoromethane	97	70-130	4/19/14 04:14	
Toluene-d8	99	70-130	4/19/14 04:14	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 0900
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 04:45

Sample Name: STR-3
 Lab Code: R1402601-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7681.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	2.3		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	93	70-130	4/19/14 04:45	
Dibromofluoromethane	98	70-130	4/19/14 04:45	
Toluene-d8	98	70-130	4/19/14 04:45	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 0930
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 15:07

Sample Name: UNNAMED STREAM
 Lab Code: R1402601-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7737.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	2.6		2.0	
79-01-6	Trichloroethene (TCE)	3.0		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	12		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	94	70-130	4/21/14 15:07	
Dibromofluoromethane	98	70-130	4/21/14 15:07	
Toluene-d8	98	70-130	4/21/14 15:07	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1000
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 05:46

Sample Name: BW-5 (9)
 Lab Code: R1402601-014

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7683.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	94	70-130	4/19/14 05:46	
Dibromofluoromethane	98	70-130	4/19/14 05:46	
Toluene-d8	99	70-130	4/19/14 05:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1030
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 06:16

Sample Name: BW-6 (13)
 Lab Code: R1402601-015

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7684.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	94	70-130	4/19/14 06:16	
Dibromofluoromethane	100	70-130	4/19/14 06:16	
Toluene-d8	98	70-130	4/19/14 06:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1100
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 06:47

Sample Name: BW-8 (13)
 Lab Code: R1402601-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7685.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	94	70-130	4/19/14 06:47	
Dibromofluoromethane	99	70-130	4/19/14 06:47	
Toluene-d8	99	70-130	4/19/14 06:47	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1130
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 07:17

Sample Name: BW-9 (12)
 Lab Code: R1402601-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7686.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	92	70-130	4/19/14 07:17	
Dibromofluoromethane	97	70-130	4/19/14 07:17	
Toluene-d8	97	70-130	4/19/14 07:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1200
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 07:48

Sample Name: MW-9A (13)
 Lab Code: R1402601-018

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7687.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	32		2.0	
156-59-2	cis-1,2-Dichloroethene	28		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	94	70-130	4/19/14 07:48	
Dibromofluoromethane	99	70-130	4/19/14 07:48	
Toluene-d8	98	70-130	4/19/14 07:48	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1300
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 08:18

Sample Name: B-3 (12)
 Lab Code: R1402601-019

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7688.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	34		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)	16		2.0	
79-01-6	Trichloroethene (TCE)	6.1		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	94	70-130	4/19/14 08:18	
Dibromofluoromethane	99	70-130	4/19/14 08:18	
Toluene-d8	98	70-130	4/19/14 08:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1330
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 08:49

Sample Name: AP13-S (16)
 Lab Code: R1402601-020

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7689.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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)	8.7		2.0	
79-01-6	Trichloroethene (TCE)	5.9		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	2.2		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	94	70-130	4/19/14 08:49	
Dibromofluoromethane	97	70-130	4/19/14 08:49	
Toluene-d8	98	70-130	4/19/14 08:49	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1400
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 23:00

Sample Name: MW-8 (17)
 Lab Code: R1402601-021

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7716.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 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	92	70-130	4/19/14 23:00	
Dibromofluoromethane	99	70-130	4/19/14 23:00	
Toluene-d8	98	70-130	4/19/14 23:00	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1430
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 09:50

Sample Name: MW-5 (21)
 Lab Code: R1402601-022

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7691.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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)	16		2.0	
79-01-6	Trichloroethene (TCE)	5.7		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	93	70-130	4/19/14 09:50	
Dibromofluoromethane	98	70-130	4/19/14 09:50	
Toluene-d8	98	70-130	4/19/14 09:50	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1500
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 10:20

Sample Name: MW-4 (25)
 Lab Code: R1402601-023

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7692.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	93	70-130	4/19/14 10:20	
Dibromofluoromethane	98	70-130	4/19/14 10:20	
Toluene-d8	97	70-130	4/19/14 10:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1600
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 10:51

Sample Name: MW-16 (35)
 Lab Code: R1402601-024

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041814\F7693.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	58		10	
79-01-6	Trichloroethene (TCE)	1800	E	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	360		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/19/14 10:51	
Dibromofluoromethane	100	70-130	4/19/14 10:51	
Toluene-d8	98	70-130	4/19/14 10:51	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1600
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 23:30

Sample Name: MW-16 (35)
 Lab Code: R1402601-024
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7717.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 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)	62	D	40	
79-01-6	Trichloroethene (TCE)	1700	D	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	340	D	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	94	70-130	4/19/14 23:30	
Dibromofluoromethane	99	70-130	4/19/14 23:30	
Toluene-d8	99	70-130	4/19/14 23:30	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1530
 Date Received: 4/11/14
 Date Analyzed: 4/20/14 00:01

Sample Name: OB10-S (29)
 Lab Code: R1402601-025

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7718.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 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)	2.9		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	94	70-130	4/20/14 00:01	
Dibromofluoromethane	99	70-130	4/20/14 00:01	
Toluene-d8	98	70-130	4/20/14 00:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1630
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 18:26

Sample Name: OB10-BR (72)
 Lab Code: R1402601-026

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041914\F7707.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	890		100	
79-01-6	Trichloroethene (TCE)	4900		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	760		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/19/14 18:26	
Dibromofluoromethane	99	70-130	4/19/14 18:26	
Toluene-d8	98	70-130	4/19/14 18:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1700
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 18:56

Sample Name: AP12-S (26)
 Lab Code: R1402601-027

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\041914\F7708.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.3		4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	1900	E	4.0	
79-01-6	Trichloroethene (TCE)	1800	E	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	380		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	6.7		4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/19/14 18:56	
Dibromofluoromethane	100	70-130	4/19/14 18:56	
Toluene-d8	99	70-130	4/19/14 18:56	

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1700
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 16:38

Sample Name: AP12-S (26)
 Lab Code: R1402601-027
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7740.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	1900	D	40	
79-01-6	Trichloroethene (TCE)	1800	D	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	350	D	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	94	70-130	4/21/14 16:38	
Dibromofluoromethane	99	70-130	4/21/14 16:38	
Toluene-d8	99	70-130	4/21/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP12-DO (48)
 Lab Code: R1402601-028

Service Request: R1402601
 Date Collected: 4/10/14 1730
 Date Received: 4/11/14

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)	124		mg/L	2.0	2	NA	4/22/14 13:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP12-DO (48)
 Lab Code: R1402601-028

Service Request: R1402601
 Date Collected: 4/10/14 1730
 Date Received: 4/11/14

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 01:03	
Manganese, Dissolved	6010C	322		µg/L	10	1	4/15/14	4/17/14 15:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1730
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 19:27

Sample Name: AP12-DO (48)
 Lab Code: R1402601-028

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7709.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	3.2		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	7.4		2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	110		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)	1700	E	2.0	
79-01-6	Trichloroethene (TCE)	12		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	92	70-130	4/19/14 19:27	
Dibromofluoromethane	98	70-130	4/19/14 19:27	
Toluene-d8	98	70-130	4/19/14 19:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1730
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 17:08

Sample Name: AP12-DO (48)
 Lab Code: R1402601-028
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7741.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	100	D	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)	1900	D	40	
79-01-6	Trichloroethene (TCE)	40	U	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	40	U	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	94	70-130	4/21/14 17:08	
Dibromofluoromethane	99	70-130	4/21/14 17:08	
Toluene-d8	99	70-130	4/21/14 17:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP12-BR (73)
 Lab Code: R1402601-029

Service Request: R1402601
 Date Collected: 4/10/14 1800
 Date Received: 4/11/14

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)	75.5	mg/L	1.0	1	NA	4/22/14 13:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP12-BR (73)
 Lab Code: R1402601-029

Service Request: R1402601
 Date Collected: 4/10/14 1800
 Date Received: 4/11/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	900	µg/L	100	1	4/15/14	4/17/14 01:09	
Manganese, Dissolved	6010C	564	µg/L	10	1	4/15/14	4/17/14 15:40	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: 4/10/14 1800
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 15:37

Sample Name: AP12-BR (73)
 Lab Code: R1402601-029

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7738.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	16		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	93	70-130	4/21/14 15:37	
Dibromofluoromethane	99	70-130	4/21/14 15:37	
Toluene-d8	99	70-130	4/21/14 15:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1402601-MB

Service Request: R1402601
Date Collected: NA
Date Received: NA
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)	1.0	U	mg/L	1.0	1	NA	4/22/14 13:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402601-MB

Service Request: R1402601
 Date Collected: NA
 Date Received: NA
 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	4/16/14 23:10	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	4/15/14	4/17/14 14:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/18/14 16:03

Sample Name: Method Blank
 Lab Code: RQ1403966-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7656.D\

Analysis Lot: 388871
 Instrument Name: R-MS-10
 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	94	70-130	4/18/14 16:03	
Dibromofluoromethane	96	70-130	4/18/14 16:03	
Toluene-d8	99	70-130	4/18/14 16:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/19/14 02:43

Sample Name: Method Blank
 Lab Code: RQ1403974-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041814\F7677.D\

Analysis Lot: 388873
 Instrument Name: R-MS-10
 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	94	70-130	4/19/14 02:43	
Dibromofluoromethane	99	70-130	4/19/14 02:43	
Toluene-d8	99	70-130	4/19/14 02:43	

Analytical Report

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

Service Request: R1402601
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/19/14 16:25

Sample Name: Method Blank
 Lab Code: RQ1403991-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041914\F7703.D\

Analysis Lot: 388959
 Instrument Name: R-MS-10
 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	94	70-130	4/19/14 16:25	
Dibromofluoromethane	96	70-130	4/19/14 16:25	
Toluene-d8	98	70-130	4/19/14 16:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402601
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/21/14 14:37

Sample Name: Method Blank
 Lab Code: RQ1404008-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7736.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	94	70-130	4/21/14 14:37	
Dibromofluoromethane	99	70-130	4/21/14 14:37	
Toluene-d8	100	70-130	4/21/14 14:37	

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

Service Request: R1402601
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402601-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Chloride	SM 4500-Cl-E-1997(20)	23.8	25.0	95	86 - 110

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: R1402601
 Date Analyzed: 4/16/14 -
 4/17/14

Lab Control Sample Summary
 Inorganic Parameters

Units: µg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402601-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Iron, Dissolved	6010C	1040	1000	104	80 - 120
Manganese, Dissolved	6010C	489	500	98	80 - 120

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.

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

Service Request: R1402601
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388871

Analyte Name	Lab Control Sample RQ1403966-02			Duplicate Lab Control Sample RQ1403966-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.6	20.0	103	20.7	20.0	103	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	22.3	20.0	112	23.0	20.0	115	70 - 130	3	20
1,1,2-Trichloroethane	22.6	20.0	113	21.8	20.0	109	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	22.1	20.0	110	22.1	20.0	110	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	25.2	20.0	126	24.9	20.0	125	70 - 130	1	20
1,2-Dichloroethane	19.2	20.0	96	19.6	20.0	98	70 - 130	2	20
1,2-Dichloropropane	23.7	20.0	119	24.0	20.0	120	70 - 130	1	20
Acetone	18.4	20.0	92	21.9	20.0	109	40 - 160	17	20
Bromodichloromethane	21.5	20.0	107	21.3	20.0	106	70 - 130	<1	20
Bromoform	22.4	20.0	112	22.7	20.0	113	70 - 130	1	20
Bromomethane	27.7	20.0	139	29.1	20.0	145	40 - 160	5	20
Carbon Tetrachloride	20.6	20.0	103	21.2	20.0	106	70 - 130	3	20
Chlorobenzene	22.0	20.0	110	22.4	20.0	112	70 - 130	2	20
Chloroethane	20.8	20.0	104	20.9	20.0	105	70 - 130	<1	20
Chloroform	20.8	20.0	104	20.5	20.0	103	70 - 130	1	20
Chloromethane	23.3	20.0	116	23.4	20.0	117	40 - 160	<1	20
Dibromochloromethane	22.4	20.0	112	22.6	20.0	113	70 - 130	1	20
Methylene Chloride	22.0	20.0	110	22.3	20.0	112	70 - 130	2	20
Tetrachloroethene (PCE)	22.5	20.0	112	23.3	20.0	116	70 - 130	3	20
Trichloroethene (TCE)	21.5	20.0	107	22.3	20.0	112	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	19.3	20.0	96	19.9	20.0	100	70 - 130	3	20
Vinyl Chloride	22.9	20.0	114	23.1	20.0	115	70 - 130	<1	20
cis-1,2-Dichloroethene	21.1	20.0	106	21.7	20.0	109	70 - 130	3	20
cis-1,3-Dichloropropene	22.8	20.0	114	22.5	20.0	112	70 - 130	2	20
trans-1,2-Dichloroethene	21.6	20.0	108	22.1	20.0	111	70 - 130	2	20
trans-1,3-Dichloropropene	22.6	20.0	113	22.7	20.0	113	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.

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

Service Request: R1402601
 Date Analyzed: 4/19/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388873

Analyte Name	Lab Control Sample RQ1403974-02			Duplicate Lab Control Sample RQ1403974-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	17.0	20.0	85	21.3	20.0	106	70 - 130	23 *	20
1,1,2,2-Tetrachloroethane	18.8	20.0	94	23.9	20.0	120	70 - 130	24 *	20
1,1,2-Trichloroethane	21.9	20.0	109	23.3	20.0	116	70 - 130	6	20
1,1-Dichloroethane (1,1-DCA)	19.0	20.0	95	23.1	20.0	115	70 - 130	19	20
1,1-Dichloroethene (1,1-DCE)	21.1	20.0	105	24.8	20.0	124	70 - 130	16	20
1,2-Dichloroethane	18.5	20.0	92	20.5	20.0	102	70 - 130	10	20
1,2-Dichloropropane	20.5	20.0	103	24.1	20.0	120	70 - 130	16	20
Acetone	21.2	20.0	106	16.6	20.0	83	40 - 160	25 *	20
Bromodichloromethane	19.9	20.0	100	22.2	20.0	111	70 - 130	11	20
Bromoform	22.4	20.0	112	22.4	20.0	112	70 - 130	<1	20
Bromomethane	23.8	20.0	119	18.7	20.0	93	40 - 160	24 *	20
Carbon Tetrachloride	17.4	20.0	87	22.1	20.0	110	70 - 130	24 *	20
Chlorobenzene	19.5	20.0	98	22.1	20.0	111	70 - 130	12	20
Chloroethane	17.6	20.0	88	21.7	20.0	108	70 - 130	21 *	20
Chloroform	18.0	20.0	90	21.4	20.0	107	70 - 130	17	20
Chloromethane	20.8	20.0	104	24.5	20.0	122	40 - 160	16	20
Dibromochloromethane	21.7	20.0	109	23.3	20.0	117	70 - 130	7	20
Methylene Chloride	20.3	20.0	101	23.1	20.0	115	70 - 130	13	20
Tetrachloroethene (PCE)	19.1	20.0	95	22.7	20.0	113	70 - 130	17	20
Trichloroethene (TCE)	22.8	20.0	114	22.9	20.0	115	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	15.8	20.0	79	20.5	20.0	103	70 - 130	26 *	20
Vinyl Chloride	18.9	20.0	95	23.7	20.0	118	70 - 130	22 *	20
cis-1,2-Dichloroethene	19.1	20.0	96	21.9	20.0	109	70 - 130	13	20
cis-1,3-Dichloropropene	19.8	20.0	99	23.0	20.0	115	70 - 130	15	20
trans-1,2-Dichloroethene	18.4	20.0	92	22.8	20.0	114	70 - 130	21 *	20
trans-1,3-Dichloropropene	20.7	20.0	104	22.8	20.0	114	70 - 130	9	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: R1402601
 Date Analyzed: 4/19/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388959

Analyte Name	Lab Control Sample RQ1403991-02			Duplicate Lab Control Sample RQ1403991-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	17.9	20.0	90	17.1	20.0	85	70 - 130	5	20
1,1,2,2-Tetrachloroethane	19.6	20.0	98	21.0	20.0	105	70 - 130	7	20
1,1,2-Trichloroethane	19.9	20.0	100	20.7	20.0	103	70 - 130	4	20
1,1-Dichloroethane (1,1-DCA)	19.9	20.0	100	19.1	20.0	96	70 - 130	4	20
1,1-Dichloroethene (1,1-DCE)	21.3	20.0	106	21.3	20.0	107	70 - 130	<1	20
1,2-Dichloroethane	18.0	20.0	90	18.1	20.0	90	70 - 130	<1	20
1,2-Dichloropropane	21.4	20.0	107	20.9	20.0	105	70 - 130	2	20
Acetone	20.8	20.0	104	22.4	20.0	112	40 - 160	7	20
Bromodichloromethane	19.3	20.0	96	18.9	20.0	94	70 - 130	2	20
Bromoform	18.9	20.0	94	19.5	20.0	98	70 - 130	3	20
Bromomethane	28.6	20.0	143	26.9	20.0	134	40 - 160	6	20
Carbon Tetrachloride	18.4	20.0	92	17.1	20.0	85	70 - 130	8	20
Chlorobenzene	19.6	20.0	98	18.9	20.0	94	70 - 130	4	20
Chloroethane	18.9	20.0	95	17.4	20.0	87	70 - 130	9	20
Chloroform	18.6	20.0	93	18.2	20.0	91	70 - 130	2	20
Chloromethane	20.9	20.0	104	20.2	20.0	101	40 - 160	4	20
Dibromochloromethane	19.5	20.0	98	20.3	20.0	101	70 - 130	4	20
Methylene Chloride	20.4	20.0	102	20.4	20.0	102	70 - 130	<1	20
Tetrachloroethene (PCE)	19.9	20.0	99	18.3	20.0	91	70 - 130	8	20
Trichloroethene (TCE)	19.4	20.0	97	18.6	20.0	93	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	17.4	20.0	87	16.2	20.0	81	70 - 130	7	20
Vinyl Chloride	20.4	20.0	102	19.2	20.0	96	70 - 130	6	20
cis-1,2-Dichloroethene	19.5	20.0	98	18.7	20.0	94	70 - 130	4	20
cis-1,3-Dichloropropene	20.0	20.0	100	19.8	20.0	99	70 - 130	<1	20
trans-1,2-Dichloroethene	19.8	20.0	99	18.4	20.0	92	70 - 130	7	20
trans-1,3-Dichloropropene	19.4	20.0	97	20.1	20.0	100	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.

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

Service Request: R1402601
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389045

Analyte Name	Lab Control Sample RQ1404008-02			Duplicate Lab Control Sample RQ1404008-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	19.7	20.0	99	17.2	20.0	86	70 - 130	14	20
1,1,2,2-Tetrachloroethane	20.1	20.0	100	19.0	20.0	95	70 - 130	6	20
1,1,2-Trichloroethane	21.2	20.0	106	19.0	20.0	95	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	21.3	20.0	106	18.9	20.0	95	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	23.4	20.0	117	20.3	20.0	102	70 - 130	14	20
1,2-Dichloroethane	18.8	20.0	94	16.9	20.0	84	70 - 130	11	20
1,2-Dichloropropane	22.2	20.0	111	19.3	20.0	97	70 - 130	14	20
Acetone	21.6	20.0	108	22.0	20.0	110	40 - 160	2	20
Bromodichloromethane	20.9	20.0	105	18.6	20.0	93	70 - 130	12	20
Bromoform	19.9	20.0	100	18.5	20.0	93	70 - 130	7	20
Bromomethane	32.7	20.0	163 *	28.4	20.0	142	40 - 160	14	20
Carbon Tetrachloride	19.8	20.0	99	17.7	20.0	89	70 - 130	11	20
Chlorobenzene	21.0	20.0	105	18.6	20.0	93	70 - 130	12	20
Chloroethane	20.3	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloroform	20.2	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloromethane	22.9	20.0	114	20.2	20.0	101	40 - 160	12	20
Dibromochloromethane	21.2	20.0	106	18.7	20.0	94	70 - 130	12	20
Methylene Chloride	21.4	20.0	107	19.5	20.0	97	70 - 130	9	20
Tetrachloroethene (PCE)	20.7	20.0	103	18.7	20.0	93	70 - 130	10	20
Trichloroethene (TCE)	20.7	20.0	104	18.2	20.0	91	70 - 130	13	20
Trichlorofluoromethane (CFC 11)	19.2	20.0	96	16.8	20.0	84	70 - 130	13	20
Vinyl Chloride	21.7	20.0	108	19.6	20.0	98	70 - 130	10	20
cis-1,2-Dichloroethene	20.5	20.0	102	18.3	20.0	91	70 - 130	12	20
cis-1,3-Dichloropropene	21.1	20.0	105	18.9	20.0	94	70 - 130	11	20
trans-1,2-Dichloroethene	20.9	20.0	105	18.4	20.0	92	70 - 130	13	20
trans-1,3-Dichloropropene	20.7	20.0	103	18.1	20.0	91	70 - 130	13	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.



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 3 OF 5

Project Name Varian Beverly Project Manager Raymond Cadorette		Project Number 150148-05000000 Report CC		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		PRESERVATIVE 1		METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) Chloride 20	
Phone # 617-589-6102 E-mail Raymond.Cadorette@cbi.com		NUMBER OF CONTAINERS 3		REMARKS/ALTERNATE DESCRIPTION Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn, Acetate 6. MeOH 7. NaHSO4 8. Other	
Sampler's Signature <i>[Signature]</i> Sampler's Printed Name Raymond Cadorette		FOR OFFICE USE ONLY LAB ID MW-14-A (58) OB14-DO (55) RW-22 (104) OB11BR (86) OB11DO (60) OB12S (27) OB12 MW-13(41) OB12-DO (47) TB-2 OB9-DO (92)		SAMPLING DATE 4.9.14 TIME 1100 1130 1200 1230 1300 1330 1430 1400 4.10.14 0730 4.10.14 0800 MATRIX GW	
SPECIAL INSTRUCTIONS/COMMENTS Metals = Field filtered Site specific VOC list. Massachusetts CAM analyses reporting and QA/QC. Please email GISKey formatted EDD & PDF of report to: Catherine.Joe@cbi.com.		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day <input checked="" type="checkbox"/> Standard		REPORT REQUIREMENTS <input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data	
INVOICE INFORMATION PO #: 873489 BILL TO: CB&I		RELINQUISHED BY Signature: <i>[Signature]</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4.10.14 1830		RECEIVED BY Signature: <i>[Signature]</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4.10.14 0845	
See OAPP <input type="checkbox"/> STATE WHERE SAMPLES WERE COLLECTED:		RELINQUISHED BY Signature: <i>[Signature]</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4.10.14 1830		RECEIVED BY Signature: <i>[Signature]</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4.10.14 0845	

R1402601
 CB&I Environmental & Infrastructure
 Varian Beverly

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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 4 OF 5

Project Name Varian Beverly		Project Number 150148-05000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		E-mail Raymond.Cadorette@cbi.com		PRELIMINARY RESULTS	
Phone # 617-589-6102		Sampler's Signature <i>Raul Ledesma</i>		NUMBER OF CONTAINERS	
Sampler's Name Raul Ledesma		FOR OFFICE USE ONLY		REMARKS/ ALTERNATE DESCRIPTION	
LAB ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		LAB ID		MATRIX	
DB9-BR (17)		41014		0930 GW	
STR-3				0900	
Upstream Stream				0930	
BW-5 (9)				1000	
BW-6 (13)				1030	
BW-8 (13)				1100	
BW-9 (18)				1130	
MW-9A (13)				1200	
B-3 (18)				1300	
AP13.5 (16)				1330	
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 CAPP <input type="checkbox"/>		STATE WHERE SAMPLES WERE COLLECTED:		RECEIVED BY	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY	
Signature <i>Raul Ledesma</i>		Signature <i>[Signature]</i>		Signature	
Printed Name Raul Ledesma		Printed Name [Name]		Printed Name	
Firm CB&I		Firm [Firm]		Firm	
Date/Time 4-10-14 1830		Date/Time 4/11/14 0845		Date/Time	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day Standard		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO #: 873489 BILL TO: CB&I	
REQUESTED REPORT DATE		Edata <input checked="" type="checkbox"/> Yes		RELINQUISHED BY	
R1402601 CB&I Environmental & Infrastructure Varian Beverly		7 Y		Signature <i>[Signature]</i>	
Barcode		RELINQUISHED BY		Printed Name	
RELINQUISHED BY		RELINQUISHED BY		Firm	
RELINQUISHED BY		RELINQUISHED BY		Date/Time	

Project Name Varian Beverly		Project Number 150148-05000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)							
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE 1							
Company/Address CB&I Environmental, Inc.				PRELIMINARY ANALYSIS (List in comments below)							
150 Royall Street				METALS, TOTAL (List in comments below)							
Canton, MA 02021				METALS, DISSOLVED (List in comments below)							
Phone #	617-589-6102	E-mail	Raymond.Cadorette@CBI.com	PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608							
Sampler's Signature	<i>Paul Hedeker</i>	Sampler's Printed Name	Raymond Cadorette	PESTICIDES <input type="checkbox"/> 8081 <input type="checkbox"/> 608							
				GC VOAS <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602							
				GCMS SVOAS <input type="checkbox"/> 8270 <input type="checkbox"/> 625							
				GCMS VOAS <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> CLP							
CLIENT SAMPLE ID	MW-8 (17)	FOR OFFICE USE ONLY LAB ID		SAMPLING DATE	4-10-14	TIME	1400	MATRIX	GW	NUMBER OF CONTAINERS	3
	MW-5 (21)						1430			3	
	MW-4 (25)						1500			3	
	MW-16 (35)						1600			3	
	DB10-5 (29)						1530			3	
	DB/D-BR (72)						1630			3	
	AP12-5 (26)						1700			3	
	AP12-02 (48)						1730			3	
	AP12-BE (73)						1800			3	
<p>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.</p>											
See OAPP <input type="checkbox"/>		STATE WHERE SAMPLES WERE COLLECTED:		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO #: 873489 BILL TO: CB&I			
RECEIVED BY <i>Paul Hedeker</i>		RECEIVED BY <i>Raymond Cadorette</i>		RECEIVED BY		RECEIVED BY		RECEIVED BY			
Signature	<i>Paul Hedeker</i>	Signature	<i>Raymond Cadorette</i>	Signature		Signature		Signature			
Printed Name	Paul Hedeker	Printed Name	Raymond Cadorette	Printed Name		Printed Name		Printed Name			
Firm	CBI	Firm	MS	Firm		Firm		Firm			
Date/Time	4/10/14 1830	Date/Time	4/11/14 0845	Date/Time		Date/Time		Date/Time			



Cooler Receipt and Preservation Check Form

Project/Client CB&T Folder Number 1214-2601

Cooler received on 4/11 by: JCS 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/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
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 JCS on 4/11/14 at 0906
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JMU 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 1133 by: JCS

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	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH								
≤2	HNO ₃	✓		BDB261JYB	3/15				
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK
No = Samples were preserved at lab as listed
PM OK to Adjust: _____

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

Bottle lot numbers: 4-002-003 081213-2A10
Other Comments:

PC Secondary Review: JMU 4/22/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



April 23, 2014

Service Request No: R1402604

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

Laboratory Results for: Varian Beverly/150151-03000000

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 **R1402604**.

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

Page 1 of 68

CC: Pernilla Haley

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402604
Project Number: 150151-03000000
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 04/08-09/14 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

Thirteen 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 AP34-DO (36) and MW-9 (20) 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 04/19/14 and has been flagged with an "**".

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

Dissolved Gases

Thirteen 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. Sample AP23-DO (48) was 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 Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

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

Inorganic Analyses

Six water samples were analyzed for TOC by method SM5310C.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

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):
R1402604-001-013

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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
<p><i>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.</i></p>				
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

¹All 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 **00004**

CASE NARRATIVE

This report contains analytical results for the following samples:

Service Request Number: R1402604

<u>Lab ID</u>	<u>Client ID</u>
R1402604-001	AP13-DO (51)
R1402604-002	AP23-DO (48)
R1402604-003	AP24-DO (47)
R1402604-004	AP33-DO (36)
R1402604-005	AP34-DO (36)
R1402604-006	AP35-DO (35)
R1402604-007	AP25-DO (46)
R1402604-008	AP30R-DO (30)
R1402604-009	MW-9 (20)
R1402604-010	OB15-S (18)
R1402604-011	RW-1 (37)
R1402604-012	OB9-S (23)
R1402604-013	OB25-DO (46)

00005

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

A handwritten signature in cursive script, appearing to read "Oscar C. Sarcobal".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

**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
<u>Analytes</u>			<u>Methods</u>	
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
<u>Analytes</u>			<u>Methods</u>	
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/150151-03000000
 Sample Matrix: Water
 Sample Name: AP13-DO (51)
 Lab Code: R1402604-001

Service Request: R1402604
 Date Collected: 4/ 8/14 1030
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	569	mg/L	40	40	NA	4/17/14 04:09	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1030
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 22:09

Sample Name: AP13-DO (51)
 Lab Code: R1402604-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\042114VJ4969.D\

Analysis Lot: 389054
 Instrument Name: R-MS-12
 Dilution Factor: 2000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25000		4000	
79-34-5	1,1,2,2-Tetrachloroethane	4000	U	4000	
79-00-5	1,1,2-Trichloroethane	4000	U	4000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4000	U	4000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4000	U	4000	
107-06-2	1,2-Dichloroethane	4000	U	4000	
78-87-5	1,2-Dichloropropane	4000	U	4000	
67-64-1	Acetone	24000		20000	
75-27-4	Bromodichloromethane	4000	U	4000	
75-25-2	Bromoform	4000	U	4000	
74-83-9	Bromomethane	4000	U	4000	
56-23-5	Carbon Tetrachloride	4000	U	4000	
108-90-7	Chlorobenzene	4000	U	4000	
75-00-3	Chloroethane	4000	U	4000	
67-66-3	Chloroform	4000	U	4000	
74-87-3	Chloromethane	4000	U	4000	
124-48-1	Dibromochloromethane	4000	U	4000	
75-09-2	Methylene Chloride	4000	U	4000	
127-18-4	Tetrachloroethene (PCE)	85000		4000	
79-01-6	Trichloroethene (TCE)	340000		4000	
75-69-4	Trichlorofluoromethane (CFC 11)	4000	U	4000	
75-01-4	Vinyl Chloride	4000	U	4000	
156-59-2	cis-1,2-Dichloroethene	5400		4000	
10061-01-5	cis-1,3-Dichloropropene	4000	U	4000	
156-60-5	trans-1,2-Dichloroethene	4000	U	4000	
10061-02-6	trans-1,3-Dichloropropene	4000	U	4000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/21/14 22:09	
Dibromofluoromethane	102	70-130	4/21/14 22:09	
Toluene-d8	98	70-130	4/21/14 22:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1030
Date Received: 4/11/14
Date Analyzed: 4/15/14 10:23

Sample Name: AP13-DO (51)
Lab Code: R1402604-001

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1012.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	1.0 U	1.0	
74-85-1	Ethene	9.9	1.0	
74-82-8	Methane	1.0 U	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: AP23-DO (48)
 Lab Code: R1402604-002

Service Request: R1402604
 Date Collected: 4/ 8/14 0900
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	387	mg/L	40	40	NA	4/17/14 18:10	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 0900
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 22:41

Sample Name: AP23-DO (48)
 Lab Code: R1402604-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042114\J4970.D\

Analysis Lot: 389054
 Instrument Name: R-MS-12
 Dilution Factor: 2000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4000	U	4000	
79-34-5	1,1,2,2-Tetrachloroethane	4000	U	4000	
79-00-5	1,1,2-Trichloroethane	4000	U	4000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4000	U	4000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4000	U	4000	
107-06-2	1,2-Dichloroethane	4000	U	4000	
78-87-5	1,2-Dichloropropane	4000	U	4000	
67-64-1	Acetone	21000		20000	
75-27-4	Bromodichloromethane	4000	U	4000	
75-25-2	Bromoform	4000	U	4000	
74-83-9	Bromomethane	4000	U	4000	
56-23-5	Carbon Tetrachloride	4000	U	4000	
108-90-7	Chlorobenzene	4000	U	4000	
75-00-3	Chloroethane	4000	U	4000	
67-66-3	Chloroform	4000	U	4000	
74-87-3	Chloromethane	4000	U	4000	
124-48-1	Dibromochloromethane	4000	U	4000	
75-09-2	Methylene Chloride	4000	U	4000	
127-18-4	Tetrachloroethene (PCE)	41000		4000	
79-01-6	Trichloroethene (TCE)	360000		4000	
75-69-4	Trichlorofluoromethane (CFC 11)	4000	U	4000	
75-01-4	Vinyl Chloride	5200		4000	
156-59-2	cis-1,2-Dichloroethene	32000		4000	
10061-01-5	cis-1,3-Dichloropropene	4000	U	4000	
156-60-5	trans-1,2-Dichloroethene	4000	U	4000	
10061-02-6	trans-1,3-Dichloropropene	4000	U	4000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/21/14 22:41	
Dibromofluoromethane	99	70-130	4/21/14 22:41	
Toluene-d8	97	70-130	4/21/14 22:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 0900
 Date Received: 4/11/14
 Date Analyzed: 4/15/14 12:02

Sample Name: AP23-DO (48)
 Lab Code: R1402604-002

Units: µg/L
 Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
 Data File Name: 1017.run

Analysis Lot: 388215
 Instrument Name: R-GC-02
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	5.0 U	5.0	
74-85-1	Ethene	620 E	5.0	
74-82-8	Methane	280	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 0900
Date Received: 4/11/14
Date Analyzed: 4/15/14 12:12

Sample Name: AP23-DO (48)
Lab Code: R1402604-002
Run Type: Dilution

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1018.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	10	U	10	
74-85-1	Ethene	610	D	10	
74-82-8	Methane	280	D	10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: AP24-DO (47)
 Lab Code: R1402604-003

Service Request: R1402604
 Date Collected: 4/ 8/14 1100
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	38.2	mg/L	2.0	2	NA	4/17/14 18:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1100
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 08:25

Sample Name: AP24-DO (47)
 Lab Code: R1402604-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814J4920.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 2000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	30000		4000	
79-34-5	1,1,2,2-Tetrachloroethane	4000	U	4000	
79-00-5	1,1,2-Trichloroethane	4000	U	4000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4000	U	4000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4000	U	4000	
107-06-2	1,2-Dichloroethane	4000	U	4000	
78-87-5	1,2-Dichloropropane	4000	U	4000	
67-64-1	Acetone	20000	U	20000	
75-27-4	Bromodichloromethane	4000	U	4000	
75-25-2	Bromoform	4000	U	4000	
74-83-9	Bromomethane	4000	U	4000	
56-23-5	Carbon Tetrachloride	4000	U	4000	
108-90-7	Chlorobenzene	4000	U	4000	
75-00-3	Chloroethane	4000	U	4000	
67-66-3	Chloroform	4000	U	4000	
74-87-3	Chloromethane	4000	U	4000	
124-48-1	Dibromochloromethane	4000	U	4000	
75-09-2	Methylene Chloride	4000	U	4000	
127-18-4	Tetrachloroethene (PCE)	31000		4000	
79-01-6	Trichloroethene (TCE)	340000		4000	
75-69-4	Trichlorofluoromethane (CFC 11)	4000	U	4000	
75-01-4	Vinyl Chloride	7900		4000	
156-59-2	cis-1,2-Dichloroethene	64000		4000	
10061-01-5	cis-1,3-Dichloropropene	4000	U	4000	
156-60-5	trans-1,2-Dichloroethene	4000	U	4000	
10061-02-6	trans-1,3-Dichloropropene	4000	U	4000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	4/19/14 08:25	
Dibromofluoromethane	104	70-130	4/19/14 08:25	
Toluene-d8	99	70-130	4/19/14 08:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1100
Date Received: 4/11/14
Date Analyzed: 4/15/14 12:35

Sample Name: AP24-DO (47)
Lab Code: R1402604-003

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1020.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	1.0 U	1.0	
74-85-1	Ethene	16	1.0	
74-82-8	Methane	1.0 U	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water
Sample Name: AP33-DO (36)
Lab Code: R1402604-004

Service Request: R1402604
Date Collected: 4/ 8/14 1200
Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	625	mg/L	40	40	NA	4/17/14 18:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1200
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 08:58

Sample Name: AP33-DO (36)
 Lab Code: R1402604-004

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\041814J4921.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 2500

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	60000		5000	
79-34-5	1,1,2,2-Tetrachloroethane	5000	U	5000	
79-00-5	1,1,2-Trichloroethane	5000	U	5000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5000	U	5000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5000	U	5000	
107-06-2	1,2-Dichloroethane	5000	U	5000	
78-87-5	1,2-Dichloropropane	5000	U	5000	
67-64-1	Acetone	25000	U	25000	
75-27-4	Bromodichloromethane	5000	U	5000	
75-25-2	Bromoform	5000	U	5000	
74-83-9	Bromomethane	5000	U	5000	
56-23-5	Carbon Tetrachloride	5000	U	5000	
108-90-7	Chlorobenzene	5000	U	5000	
75-00-3	Chloroethane	5000	U	5000	
67-66-3	Chloroform	5000	U	5000	
74-87-3	Chloromethane	5000	U	5000	
124-48-1	Dibromochloromethane	5000	U	5000	
75-09-2	Methylene Chloride	5000	U	5000	
127-18-4	Tetrachloroethene (PCE)	69000		5000	
79-01-6	Trichloroethene (TCE)	290000		5000	
75-69-4	Trichlorofluoromethane (CFC 11)	5000	U	5000	
75-01-4	Vinyl Chloride	10000		5000	
156-59-2	cis-1,2-Dichloroethene	290000		5000	
10061-01-5	cis-1,3-Dichloropropene	5000	U	5000	
156-60-5	trans-1,2-Dichloroethene	5000	U	5000	
10061-02-6	trans-1,3-Dichloropropene	5000	U	5000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/19/14 08:58	
Dibromofluoromethane	102	70-130	4/19/14 08:58	
Toluene-d8	97	70-130	4/19/14 08:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1200
Date Received: 4/11/14
Date Analyzed: 4/15/14 12:45

Sample Name: AP33-DO (36)
Lab Code: R1402604-004

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1021.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 50

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	50 U	50	
74-85-1	Ethene	2400	50	
74-82-8	Methane	60	50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water
Sample Name: AP34-DO (36)
Lab Code: R1402604-005

Service Request: R1402604
Date Collected: 4/ 8/14 1245
Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	215	mg/L	10	10	NA	4/17/14 19:13	

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Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1245
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 06:16

Sample Name: AP34-DO (36)
 Lab Code: R1402604-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814J4916.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 250

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	8100	500	
79-34-5	1,1,2,2-Tetrachloroethane	500 U	500	
79-00-5	1,1,2-Trichloroethane	500 U	500	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	500	
75-35-4	1,1-Dichloroethene (1,1-DCE)	920	500	
107-06-2	1,2-Dichloroethane	500 U	500	
78-87-5	1,2-Dichloropropane	500 U	500	
67-64-1	Acetone	2500 U	2500	
75-27-4	Bromodichloromethane	500 U	500	
75-25-2	Bromoform	500 U	500	
74-83-9	Bromomethane	500 U	500	
56-23-5	Carbon Tetrachloride	500 U	500	
108-90-7	Chlorobenzene	500 U	500	
75-00-3	Chloroethane	500 U	500	
67-66-3	Chloroform	500 U	500	
74-87-3	Chloromethane	500 U	500	
124-48-1	Dibromochloromethane	500 U	500	
75-09-2	Methylene Chloride	500 U	500	
127-18-4	Tetrachloroethene (PCE)	500 U	500	
79-01-6	Trichloroethene (TCE)	640	500	
75-69-4	Trichlorofluoromethane (CFC 11)	500 U	500	
75-01-4	Vinyl Chloride	2100	500	
156-59-2	cis-1,2-Dichloroethene	55000 E	500	
10061-01-5	cis-1,3-Dichloropropene	500 U	500	
156-60-5	trans-1,2-Dichloroethene	500 U	500	
10061-02-6	trans-1,3-Dichloropropene	500 U	500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/19/14 06:16	
Dibromofluoromethane	101	70-130	4/19/14 06:16	
Toluene-d8	98	70-130	4/19/14 06:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1245
 Date Received: 4/11/14
 Date Analyzed: 4/21/14 21:37

Sample Name: AP34-DO (36)
 Lab Code: R1402604-005
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\042114J4968.D\

Analysis Lot: 389054
 Instrument Name: R-MS-12
 Dilution Factor: 500

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	8200	D	1000	
79-34-5	1,1,2,2-Tetrachloroethane	1000	U	1000	
79-00-5	1,1,2-Trichloroethane	1000	U	1000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	D	1000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	U	1000	
107-06-2	1,2-Dichloroethane	1000	U	1000	
78-87-5	1,2-Dichloropropane	1000	U	1000	
67-64-1	Acetone	5000	U	5000	
75-27-4	Bromodichloromethane	1000	U	1000	
75-25-2	Bromoform	1000	U	1000	
74-83-9	Bromomethane	1000	U	1000	
56-23-5	Carbon Tetrachloride	1000	U	1000	
108-90-7	Chlorobenzene	1000	U	1000	
75-00-3	Chloroethane	1000	U	1000	
67-66-3	Chloroform	1000	U	1000	
74-87-3	Chloromethane	1000	U	1000	
124-48-1	Dibromochloromethane	1000	U	1000	
75-09-2	Methylene Chloride	1000	U	1000	
127-18-4	Tetrachloroethene (PCE)	1000	U	1000	
79-01-6	Trichloroethene (TCE)	1000	U	1000	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	U	1000	
75-01-4	Vinyl Chloride	2100	D	1000	
156-59-2	cis-1,2-Dichloroethene	55000	D	1000	
10061-01-5	cis-1,3-Dichloropropene	1000	U	1000	
156-60-5	trans-1,2-Dichloroethene	1000	U	1000	
10061-02-6	trans-1,3-Dichloropropene	1000	U	1000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	4/21/14 21:37	
Dibromofluoromethane	101	70-130	4/21/14 21:37	
Toluene-d8	97	70-130	4/21/14 21:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1245
Date Received: 4/11/14
Date Analyzed: 4/15/14 12:55

Sample Name: AP34-DO (36)
Lab Code: R1402604-005

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1022.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 4

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	4.0 U	4.0	
74-85-1	Ethene	210	4.0	
74-82-8	Methane	25	4.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: AP35-DO (35)
 Lab Code: R1402604-006

Service Request: R1402604
 Date Collected: 4/8/14 1330
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	670	mg/L	100	100	NA	4/17/14 06:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1330
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 06:48

Sample Name: AP35-DO (35)
 Lab Code: R1402604-006

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\msvoa12\Data\041814\J4917.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 1000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2000	U	2000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U	2000	
79-00-5	1,1,2-Trichloroethane	2000	U	2000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2000	U	2000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2000	U	2000	
107-06-2	1,2-Dichloroethane	2000	U	2000	
78-87-5	1,2-Dichloropropane	2000	U	2000	
67-64-1	Acetone	10000	U	10000	
75-27-4	Bromodichloromethane	2000	U	2000	
75-25-2	Bromoform	2000	U	2000	
74-83-9	Bromomethane	2000	U	2000	
56-23-5	Carbon Tetrachloride	2000	U	2000	
108-90-7	Chlorobenzene	2000	U	2000	
75-00-3	Chloroethane	2000	U	2000	
67-66-3	Chloroform	2000	U	2000	
74-87-3	Chloromethane	2000	U	2000	
124-48-1	Dibromochloromethane	2000	U	2000	
75-09-2	Methylene Chloride	2000	U	2000	
127-18-4	Tetrachloroethene (PCE)	2100		2000	
79-01-6	Trichloroethene (TCE)	25000		2000	
75-69-4	Trichlorofluoromethane (CFC 11)	2000	U	2000	
75-01-4	Vinyl Chloride	2000	U	2000	
156-59-2	cis-1,2-Dichloroethene	130000		2000	
10061-01-5	cis-1,3-Dichloropropene	2000	U	2000	
156-60-5	trans-1,2-Dichloroethene	2000	U	2000	
10061-02-6	trans-1,3-Dichloropropene	2000	U	2000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	4/19/14 06:48	
Dibromofluoromethane	102	70-130	4/19/14 06:48	
Toluene-d8	96	70-130	4/19/14 06:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1330
Date Received: 4/11/14
Date Analyzed: 4/15/14 13:05

Sample Name: AP35-DO (35)
Lab Code: R1402604-006

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1023.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	4.3	1.0	
74-85-1	Ethene	38	1.0	
74-82-8	Methane	62	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: AP25-DO (46)
 Lab Code: R1402604-007

Service Request: R1402604
 Date Collected: 4/ 8/14 0800
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5		mg/L	1.0	1	NA	4/17/14 06:56	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 0800
 Date Received: 4/11/14
 Date Analyzed: 4/20/14 01:18

Sample Name: AP25-DO (46)
 Lab Code: R1402604-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041914\J4941.D\

Analysis Lot: 388968
 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)	40	U	40	
79-01-6	Trichloroethene (TCE)	190		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	120		40	
156-59-2	cis-1,2-Dichloroethene	2400		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	100	70-130	4/20/14 01:18	
Dibromofluoromethane	102	70-130	4/20/14 01:18	
Toluene-d8	97	70-130	4/20/14 01:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 0800
Date Received: 4/11/14
Date Analyzed: 4/15/14 13:25

Sample Name: AP25-DO (46)
Lab Code: R1402604-007

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1025.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	1.0 U	1.0	
74-85-1	Ethene	47	1.0	
74-82-8	Methane	9.1	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: AP30R-DO (30)
 Lab Code: R1402604-008

Service Request: R1402604
 Date Collected: 4/8/14 1000
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.1	mg/L	1.0	1	NA	4/17/14 07:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1000
 Date Received: 4/11/14
 Date Analyzed: 4/20/14 02:23

Sample Name: AP30R-DO (30)
 Lab Code: R1402604-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041914V4943.D\

Analysis Lot: 388968
 Instrument Name: R-MS-12
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	530		100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	470		100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	1400		100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	3100		100	
79-01-6	Trichloroethene (TCE)	4800		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	250		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	4/20/14 02:23	
Dibromofluoromethane	101	70-130	4/20/14 02:23	
Toluene-d8	97	70-130	4/20/14 02:23	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1000
 Date Received: 4/11/14
 Date Analyzed: 4/15/14 14:47

Sample Name: AP30R-DO (30)
 Lab Code: R1402604-008

Units: µg/L
 Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
 Data File Name: 1031.run

Analysis Lot: 388221
 Instrument Name: R-GC-02
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	1.7	1.0	
74-85-1	Ethene	1.0 U	1.0	
74-82-8	Methane	6.4	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: MW-9 (20)
 Lab Code: R1402604-009

Service Request: R1402604
 Date Collected: 4/ 8/14 1500
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1110	mg/L	100	100	NA	4/17/14 08:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1500
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 03:34

Sample Name: MW-9 (20)
 Lab Code: R1402604-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\041814U4911.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 25

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50 U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50 U	50	
79-00-5	1,1,2-Trichloroethane	50 U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50 U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50 U	50	
107-06-2	1,2-Dichloroethane	50 U	50	
78-87-5	1,2-Dichloropropane	50 U	50	
67-64-1	Acetone	250 U	250	
75-27-4	Bromodichloromethane	50 U	50	
75-25-2	Bromoform	50 U	50	
74-83-9	Bromomethane	50 U	50	
56-23-5	Carbon Tetrachloride	50 U	50	
108-90-7	Chlorobenzene	50 U	50	
75-00-3	Chloroethane	50 U	50	
67-66-3	Chloroform	50 U	50	
74-87-3	Chloromethane	50 U	50	
124-48-1	Dibromochloromethane	50 U	50	
75-09-2	Methylene Chloride	50 U	50	
127-18-4	Tetrachloroethene (PCE)	50 U	50	
79-01-6	Trichloroethene (TCE)	50 U	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50 U	50	
75-01-4	Vinyl Chloride	2400	50	
156-59-2	cis-1,2-Dichloroethene	5300 E	50	
10061-01-5	cis-1,3-Dichloropropene	50 U	50	
156-60-5	trans-1,2-Dichloroethene	50 U	50	
10061-02-6	trans-1,3-Dichloropropene	50 U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	4/19/14 03:34	
Dibromofluoromethane	99	70-130	4/19/14 03:34	
Toluene-d8	97	70-130	4/19/14 03:34	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1500
 Date Received: 4/11/14
 Date Analyzed: 4/20/14 02:56

Sample Name: MW-9 (20)
 Lab Code: R1402604-009
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041914\J4944.D\

Analysis Lot: 388968
 Instrument Name: R-MS-12
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	100	U	100	
79-01-6	Trichloroethene (TCE)	100	U	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	1900	D	100	
156-59-2	cis-1,2-Dichloroethene	4100	D	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	4/20/14 02:56	
Dibromofluoromethane	103	70-130	4/20/14 02:56	
Toluene-d8	97	70-130	4/20/14 02:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 8/14 1500
Date Received: 4/11/14
Date Analyzed: 4/15/14 14:57

Sample Name: MW-9 (20)
Lab Code: R1402604-009

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1032.run

Analysis Lot: 388221
Instrument Name: R-GC-02
Dilution Factor: 125

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	670	130	
74-85-1	Ethene	5300	130	
74-82-8	Methane	13000	130	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: OB15-S (18)
 Lab Code: R1402604-010

Service Request: R1402604
 Date Collected: 4/ 8/14 1400
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	17.5	mg/L	1.0	1	NA	4/17/14 19:34	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1400
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 02:29

Sample Name: OB15-S (18)
 Lab Code: R1402604-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814\4909.D\

Analysis Lot: 388888
 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	11		2.0	
156-59-2	cis-1,2-Dichloroethene	2.9		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	99	70-130	4/19/14 02:29	
Dibromofluoromethane	103	70-130	4/19/14 02:29	
Toluene-d8	98	70-130	4/19/14 02:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 8/14 1400
 Date Received: 4/11/14
 Date Analyzed: 4/15/14 15:09

Sample Name: OB15-S (18)
 Lab Code: R1402604-010

Units: µg/L
 Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
 Data File Name: 1033.run

Analysis Lot: 388221
 Instrument Name: R-GC-02
 Dilution Factor: 125

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	340		130	
74-85-1	Ethene	160		130	
74-82-8	Methane	11000		130	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water
Sample Name: RW-1 (37)
Lab Code: R1402604-011

Service Request: R1402604
Date Collected: 4/9/14 0900
Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	50.9		mg/L	4.0	4	NA	4/17/14 19:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/ 9/14 0900
 Date Received: 4/11/14
 Date Analyzed: 4/20/14 01:51

Sample Name: RW-1 (37)
 Lab Code: R1402604-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041914J4942.D\

Analysis Lot: 388968
 Instrument Name: R-MS-12
 Dilution Factor: 25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	50	U	50	
79-01-6	Trichloroethene (TCE)	50	U	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	480		50	
156-59-2	cis-1,2-Dichloroethene	4300		50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/20/14 01:51	
Dibromofluoromethane	100	70-130	4/20/14 01:51	
Toluene-d8	96	70-130	4/20/14 01:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/9/14 0900
Date Received: 4/11/14
Date Analyzed: 4/15/14 15:19

Sample Name: RW-1 (37)
Lab Code: R1402604-011

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1034.run

Analysis Lot: 388221
Instrument Name: R-GC-02
Dilution Factor: 4

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	4.0 U	4.0	
74-85-1	Ethene	15	4.0	
74-82-8	Methane	370	4.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: OB9-S (23)
 Lab Code: R1402604-012

Service Request: R1402604
 Date Collected: 4/9/14 0930
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	26.4		mg/L	4.0	4	NA	4/17/14 20:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/9/14 0930
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 03:01

Sample Name: OB9-S (23)
 Lab Code: R1402604-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\041814V4910.D\

Analysis Lot: 388888
 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	2.3		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	2.9		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	4/19/14 03:01	
Dibromofluoromethane	102	70-130	4/19/14 03:01	
Toluene-d8	97	70-130	4/19/14 03:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/ 9/14 0930
Date Received: 4/11/14
Date Analyzed: 4/15/14 15:29

Sample Name: OB9-S (23)
Lab Code: R1402604-012

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1035.run

Analysis Lot: 388221
Instrument Name: R-GC-02
Dilution Factor: 250

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	250 U	250	
74-85-1	Ethene	250 U	250	
74-82-8	Methane	15000	250	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water
 Sample Name: OB25-DO (46)
 Lab Code: R1402604-013

Service Request: R1402604
 Date Collected: 4/9/14 1030
 Date Received: 4/11/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.4		mg/L	1.0	1	NA	4/17/14 20:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: 4/9/14 1030
 Date Received: 4/11/14
 Date Analyzed: 4/19/14 05:11

Sample Name: OB25-DO (46)
 Lab Code: R1402604-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814\J4914.D\

Analysis Lot: 388888
 Instrument Name: R-MS-12
 Dilution Factor: 100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	470		200	
79-01-6	Trichloroethene (TCE)	17000		200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	480		200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/19/14 05:11	
Dibromofluoromethane	102	70-130	4/19/14 05:11	
Toluene-d8	97	70-130	4/19/14 05:11	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: 4/9/14 1030
Date Received: 4/11/14
Date Analyzed: 4/15/14 15:39

Sample Name: OB25-DO (46)
Lab Code: R1402604-013

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1036.run

Analysis Lot: 388221
Instrument Name: R-GC-02
Dilution Factor: 4

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	4.0 U	4.0	
74-85-1	Ethene	4.0 U	4.0	
74-82-8	Methane	320	4.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1402604-MB1

Service Request: R1402604
Date Collected: NA
Date Received: NA
Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	NA	4/17/14 01:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1402604-MB2

Service Request: R1402604
Date Collected: NA
Date Received: NA
Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	NA	4/17/14 17:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/19/14 01:57

Sample Name: Method Blank
 Lab Code: RQ1403848-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\041814\4908.D\

Analysis Lot: 388888
 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	4/19/14 01:57	
Dibromofluoromethane	101	70-130	4/19/14 01:57	
Toluene-d8	98	70-130	4/19/14 01:57	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/19/14 18:49

Sample Name: Method Blank
 Lab Code: RQ1403864-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa12\Data\041914\J4929.D\

Analysis Lot: 388968
 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	99	70-130	4/19/14 18:49	
Dibromofluoromethane	100	70-130	4/19/14 18:49	
Toluene-d8	98	70-130	4/19/14 18:49	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/21/14 13:34

Sample Name: Method Blank
 Lab Code: RQ1403905-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042114J4953.D\

Analysis Lot: 389054
 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	99	70-130	4/21/14 13:34	
Dibromofluoromethane	101	70-130	4/21/14 13:34	
Toluene-d8	97	70-130	4/21/14 13:34	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: NA
Date Received: NA
Date Analyzed: 4/15/14 08:39

Sample Name: Method Blank
Lab Code: RQ1403617-01

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1002.run

Analysis Lot: 388215
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
74-84-0	Ethane	1.0 U	1.0	
74-85-1	Ethene	1.0 U	1.0	
74-82-8	Methane	1.0 U	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-03000000
Sample Matrix: Water

Service Request: R1402604
Date Collected: NA
Date Received: NA
Date Analyzed: 4/15/14 14:07

Sample Name: Method Blank
Lab Code: RQ1403619-01

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175
Data File Name: 1028.run

Analysis Lot: 388221
Instrument Name: R-GC-02
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/17/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402604-LCS1			% Rec Limits
		Result	Spike Amount	% Rec	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.0	10.0	100	86 - 119

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.

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/17/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402604-LCS2			% Rec Limits
		Result	Spike Amount	% Rec	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.3	10.0	103	86 - 119

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/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/19/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388888

Analyte Name	Lab Control Sample RQ1403848-03			Duplicate Lab Control Sample RQ1403848-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.6	20.0	93	20.6	20.0	103	70 - 130	10	20
1,1,2,2-Tetrachloroethane	18.6	20.0	93	19.3	20.0	96	70 - 130	4	20
1,1,2-Trichloroethane	20.1	20.0	101	22.0	20.0	110	70 - 130	9	20
1,1-Dichloroethane (1,1-DCA)	18.0	20.0	90	20.0	20.0	100	70 - 130	11	20
1,1-Dichloroethene (1,1-DCE)	20.8	20.0	104	22.7	20.0	113	70 - 130	9	20
1,2-Dichloroethane	20.7	20.0	104	22.3	20.0	112	70 - 130	7	20
1,2-Dichloropropane	18.2	20.0	91	19.6	20.0	98	70 - 130	7	20
Acetone	28.3	20.0	142	30.3	20.0	151	40 - 160	7	20
Bromodichloromethane	19.8	20.0	99	22.0	20.0	110	70 - 130	11	20
Bromoform	20.8	20.0	104	22.0	20.0	110	70 - 130	6	20
Bromomethane	21.8	20.0	109	23.3	20.0	116	40 - 160	7	20
Carbon Tetrachloride	18.5	20.0	92	20.6	20.0	103	70 - 130	11	20
Chlorobenzene	18.9	20.0	94	20.6	20.0	103	70 - 130	9	20
Chloroethane	19.9	20.0	99	21.6	20.0	108	70 - 130	9	20
Chloroform	18.4	20.0	92	20.2	20.0	101	70 - 130	9	20
Chloromethane	20.3	20.0	102	21.7	20.0	108	40 - 160	6	20
Dibromochloromethane	21.3	20.0	107	22.6	20.0	113	70 - 130	6	20
Methylene Chloride	18.6	20.0	93	20.0	20.0	100	70 - 130	7	20
Tetrachloroethene (PCE)	18.8	20.0	94	21.0	20.0	105	70 - 130	11	20
Trichloroethene (TCE)	21.1	20.0	106	23.8	20.0	119	70 - 130	12	20
Trichlorofluoromethane (CFC 11)	18.5	20.0	93	20.7	20.0	103	70 - 130	11	20
Vinyl Chloride	21.0	20.0	105	23.9	20.0	120	70 - 130	13	20
cis-1,2-Dichloroethene	18.2	20.0	91	19.8	20.0	99	70 - 130	9	20
cis-1,3-Dichloropropene	18.9	20.0	94	20.3	20.0	101	70 - 130	7	20
trans-1,2-Dichloroethene	18.1	20.0	91	20.4	20.0	102	70 - 130	12	20
trans-1,3-Dichloropropene	20.6	20.0	103	22.4	20.0	112	70 - 130	8	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.

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/19/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388968

Analyte Name	Lab Control Sample RQ1403864-03			Duplicate Lab Control Sample RQ1403864-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	19.7	20.0	98	20.0	20.0	100	70 - 130	2	20
1,1,2,2-Tetrachloroethane	20.1	20.0	100	19.7	20.0	98	70 - 130	2	20
1,1,2-Trichloroethane	20.0	20.0	100	20.2	20.0	101	70 - 130	<1	20
1,1-Dichloroethane (1,1-DCA)	19.0	20.0	95	19.4	20.0	97	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	22.0	20.0	110	23.0	20.0	115	70 - 130	5	20
1,2-Dichloroethane	21.3	20.0	106	21.2	20.0	106	70 - 130	<1	20
1,2-Dichloropropane	19.3	20.0	96	19.4	20.0	97	70 - 130	<1	20
Acetone	14.7	20.0	74	20.4	20.0	102	40 - 160	33 *	20
Bromodichloromethane	21.1	20.0	106	21.1	20.0	106	70 - 130	<1	20
Bromoform	21.2	20.0	106	20.9	20.0	105	70 - 130	1	20
Bromomethane	20.5	20.0	102	22.5	20.0	112	40 - 160	9	20
Carbon Tetrachloride	20.5	20.0	103	20.2	20.0	101	70 - 130	2	20
Chlorobenzene	20.3	20.0	102	20.6	20.0	103	70 - 130	2	20
Chloroethane	20.7	20.0	103	21.1	20.0	105	70 - 130	2	20
Chloroform	19.6	20.0	98	19.5	20.0	98	70 - 130	<1	20
Chloromethane	20.7	20.0	103	21.6	20.0	108	40 - 160	4	20
Dibromochloromethane	22.3	20.0	112	22.0	20.0	110	70 - 130	1	20
Methylene Chloride	18.8	20.0	94	19.3	20.0	97	70 - 130	3	20
Tetrachloroethene (PCE)	21.0	20.0	105	21.3	20.0	107	70 - 130	2	20
Trichloroethene (TCE)	20.9	20.0	104	21.2	20.0	106	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	20.2	20.0	101	20.4	20.0	102	70 - 130	1	20
Vinyl Chloride	22.8	20.0	114	22.5	20.0	113	70 - 130	1	20
cis-1,2-Dichloroethene	18.9	20.0	95	19.7	20.0	98	70 - 130	4	20
cis-1,3-Dichloropropene	20.2	20.0	101	20.0	20.0	100	70 - 130	<1	20
trans-1,2-Dichloroethene	20.0	20.0	100	20.3	20.0	101	70 - 130	1	20
trans-1,3-Dichloropropene	22.1	20.0	110	21.5	20.0	107	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.

Client: CB&I
 Project: Varian Beverly/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389054

Analyte Name	Lab Control Sample RQ1403905-03			Duplicate Lab Control Sample RQ1403905-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	20.7	20.0	103	70 - 130	2	20
1,1,2,2-Tetrachloroethane	19.9	20.0	99	19.4	20.0	97	70 - 130	2	20
1,1,2-Trichloroethane	21.2	20.0	106	20.8	20.0	104	70 - 130	1	20
1,1-Dichloroethane (1,1-DCA)	19.7	20.0	99	20.0	20.0	100	70 - 130	1	20
1,1-Dichloroethene (1,1-DCE)	22.9	20.0	115	23.4	20.0	117	70 - 130	2	20
1,2-Dichloroethane	20.9	20.0	105	20.9	20.0	105	70 - 130	<1	20
1,2-Dichloropropane	19.9	20.0	99	19.8	20.0	99	70 - 130	<1	20
Acetone	20.5	20.0	102	18.6	20.0	93	40 - 160	10	20
Bromodichloromethane	21.9	20.0	109	21.8	20.0	109	70 - 130	<1	20
Bromoform	21.4	20.0	107	21.8	20.0	109	70 - 130	2	20
Bromomethane	22.0	20.0	110	21.7	20.0	108	40 - 160	2	20
Carbon Tetrachloride	20.5	20.0	102	21.0	20.0	105	70 - 130	3	20
Chlorobenzene	20.8	20.0	104	21.6	20.0	108	70 - 130	4	20
Chloroethane	21.5	20.0	108	22.4	20.0	112	70 - 130	4	20
Chloroform	20.1	20.0	101	20.0	20.0	100	70 - 130	<1	20
Chloromethane	22.1	20.0	110	22.4	20.0	112	40 - 160	1	20
Dibromochloromethane	22.1	20.0	110	22.5	20.0	112	70 - 130	2	20
Methylene Chloride	19.7	20.0	98	20.2	20.0	101	70 - 130	2	20
Tetrachloroethene (PCE)	21.6	20.0	108	22.1	20.0	111	70 - 130	3	20
Trichloroethene (TCE)	21.6	20.0	108	21.9	20.0	109	70 - 130	1	20
Trichlorofluoromethane (CFC 11)	20.3	20.0	101	20.7	20.0	104	70 - 130	2	20
Vinyl Chloride	23.1	20.0	115	23.5	20.0	118	70 - 130	2	20
cis-1,2-Dichloroethene	19.8	20.0	99	20.2	20.0	101	70 - 130	2	20
cis-1,3-Dichloropropene	20.9	20.0	104	20.9	20.0	104	70 - 130	<1	20
trans-1,2-Dichloroethene	20.2	20.0	101	20.3	20.0	101	70 - 130	<1	20
trans-1,3-Dichloropropene	21.8	20.0	109	22.2	20.0	111	70 - 130	2	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/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/15/14

Lab Control Sample Summary
 Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
 Basis: NA

Analysis Lot: 388215

Analyte Name	Lab Control Sample RQ1403617-02			Duplicate Lab Control Sample RQ1403617-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Ethane	26.2	26.1	101	26.9	26.1	103	78 - 134	3	30
Ethene	26.8	24.3	110	27.3	24.3	112	73 - 129	2	30
Methane	25.7	26.2	98	26.1	26.2	100	76 - 138	1	30

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/150151-03000000
 Sample Matrix: Water

Service Request: R1402604
 Date Analyzed: 4/15/14

Lab Control Sample Summary
 Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
 Basis: NA

Analysis Lot: 388221

Analyte Name	Lab Control Sample RQ1403619-02			Duplicate Lab Control Sample RQ1403619-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Ethane	27.4	26.1	105	26.3	26.1	101	78 - 134	4	30
Ethene	28.6	24.3	117	27.3	24.3	112	73 - 129	4	30
Methane	26.4	26.2	101	25.2	26.2	96	76 - 138	5	30

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.



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 2

Project Name Varian Beverly		Project Number 150151-03000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		E-mail Raymond.Cadorette@cbi.com		PRELIMINARY RESULTS	
Phone # 617-589-6102		Sample Printed Name Paul Ledoux		REMARKS/ ALTERNATE DESCRIPTION	
Sample Signature <i>Paul Ledoux</i>		FOR OFFICE USE ONLY		PRESERVATIVE KEY	
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	
AP 13-DO (51)		4-8-14	1030	GH	
AP 23-DO (48)			0902		
AP 24-DO (47)			1100		
AP 33-DO (36)			1200		
AP 34-DO (36)			1242		
AP 35-DO (35)			1330		
AP 25-DO (46)			0800		
AP 30R-DO (30)			1000		
MW-9 (20)			1500		
OB 15-S (18)			1400		

SPECIAL INSTRUCTIONS/COMMENTS Metals Site specific VOC list. Massachusetts CAM analyses reporting and QA/QC. Please email GISKey formatted EDD & PDF of report to: Catherine.Joe@cbi.com.	TURNAROUND REQUIREMENTS <input type="checkbox"/> RUSH (SURCHARGES APPLY) <input type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/> 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard	REPORT REQUIREMENTS <input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + OC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + OC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with RIA	INVOICE INFORMATION PO #: 873489 BILL TO: CB&I
---	--	--	--

RECEIVED BY Signature: <i>Paul Ledoux</i> Printed Name: Paul Ledoux Firm: CB&I Date/Time: 4/10/14 1830	RECEIVED BY Signature: <i>Paul Ledoux</i> Printed Name: Paul Ledoux Firm: CB&I Date/Time: 4/11/14 0845	RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____
--	--	---	---

STATE WHERE SAMPLES WERE COLLECTED: _____ See OAPP <input type="checkbox"/>	REQUESTED REPORT DATE: _____ Edote <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	R1402604 CB&I Environmental & Infrastructure Varian Beverly
--	---	---



Cooler Receipt and Preservation Check Form

Project/Client CB&I Folder Number 114-2607

Cooler received on 4/11 by: JCS COURIER: ALS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROE, CLIENT
- Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
- 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
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 JCS on 4/11/14 at 0906
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JCS 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 0909 by: JCS

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

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
≥12	NaOH									
≤2	HNO ₃									
≤2	H ₂ SO ₄	<input checked="" type="checkbox"/>		WC1261010	4/15					
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	4112120	3/15					

Bottle lot numbers: 4-002-003
Other Comments:

0025-DO (46) is labeled 0025-DO (67) → sample labels do not match CDC

PC Secondary Review: JCS 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 **Analytical Method :** SW-846 8260C
Metals 6010 C
Chloride SM 4500-CL-E
Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** R1402638
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, 4/11/14	SW-846 8260C	14 days	10 days	4/21, 4/22/14
4/11/14	6010 C	180 Days	180 Days	4/16, 4/17/14
4/11/14	SM 4500-CL-E	28 Days	28 Days	4/22/14

Sample temperature within QC limits: Cooler 1: No, 13.1 C
Cooler 2: 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-4

Trip Blank ID : TB-3

Method Blank: SW-846 8260C 4/21, 4/22/14

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. Samples AP21 (23) AP-27-DO (56), BR5 ZONE 2, BR5 ZONE 3, CL9-BR ZONE 2 AND BR6 ZONE 2 were 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 except Bromomethane was outside limits in batch 389045 the 4/21/14 LCS. All RPD's were acceptable except Acetone, which was outside limits in batches 389046 and 389330 on 4/22/14. All outlying QC 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: Pemilla Haley, 6/9/14



April 25, 2014

Service Request No: R1402638

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 between April 11, 2014 and April 14, 2014. For your reference, these analyses have been assigned our service request number **R1402638**.

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: Pemilla Haley

Page 1 of 76

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475

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CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402638
Project Number: 150148-05000000
Date Received: 04/14/14

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 04/08-11/14 and received at ALS in good condition at cooler temperatures of 5.5 – 13.1 °C as noted on the cooler receipt and preservation check form. The client was notified of the out of temperature cooler and the samples were analyzed. 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 nine 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 AO-21 (23'), AP-27-DO (56'), BR5 ZONE 2, BR5 ZONE 3, CL9-BR ZONE 2 and BR6 ZONE 2 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 except Bromomethane was outside limits high on the 04/21/14 LCS. All RPD's were acceptable except Acetone was outside limits on 04/22/14 RPD's. 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

Seven water samples were analyzed for Chloride by SM3400-CI-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.

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):
R1402638-001-029

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/>	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
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
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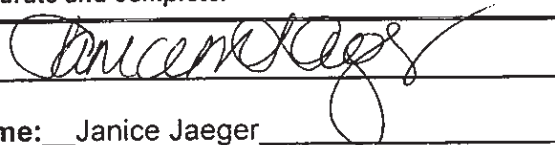
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

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

¹All 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: 04/29/14
00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402638

<u>Lab ID</u>	<u>Client ID</u>
R1402638-001	STRHA-7A
R1402638-002	STRHA-7B
R1402638-003	OB24-S
R1402638-004	MW-33B
R1402638-005	TB-3
R1402638-006	AP-19 (25')
R1402638-007	AP-20 (16')
R1402638-008	AP-21 (23')
R1402638-009	AP-22 (20')
R1402638-010	B-2 (11')
R1402638-011	OB38-DO (44')
R1402638-012	AP-27-DO (56')
R1402638-013	EB-4
R1402638-014	OB27-BR (74')
R1402638-015	CL-11S (24')
R1402638-016	CL-11DO (48')
R1402638-017	OB43-S (15')
R1402638-018	BR5 ZONE 1
R1402638-019	BR5 ZONE 2
R1402638-020	BR5 ZONE 3
R1402638-021	CL9-BR ZONE 1
R1402638-022	CL9-BR ZONE 2
R1402638-023	CL9-BR ZONE 3
R1402638-024	BR6 ZONE 1
R1402638-025	BR6 ZONE 2
R1402638-026	BR6 ZONE 3
R1402638-027	CL8-BR ZONE 1
R1402638-028	CL8-BR ZONE 2
R1402638-029	CL8-BR ZONE 3

00004

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

RIGHT SOLUTIONS | RIGHT PARTNER



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.

A handwritten signature in cursive script, reading "Jacob C. Jacobs".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

**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
<u>Analytes</u>			<u>Methods</u>	
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 (CaCO ₃), 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

<u>Analytes</u>	<u>Methods</u>
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/150148-05000000
 Sample Matrix: Water

Service Request: R1402638
 Date Collected: 4/10/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 17:39

Sample Name: STRHA-7A
 Lab Code: R1402638-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7742.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	8.8		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	9.7		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	4/21/14 17:39	
Dibromofluoromethane	98	70-130	4/21/14 17:39	
Toluene-d8	97	70-130	4/21/14 17:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/10/14 1330
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 18:09

Sample Name: STRHA-7B
 Lab Code: R1402638-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7743.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	9.9		2.0	
79-01-6	Trichloroethene (TCE)	42		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	94	70-130	4/21/14 18:09	
Dibromofluoromethane	96	70-130	4/21/14 18:09	
Toluene-d8	91	70-130	4/21/14 18:09	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/10/14 1400
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 18:39

Sample Name: OB24-S
 Lab Code: R1402638-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\msvoa10\data\042114\F7744.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	4/21/14 18:39	
Dibromofluoromethane	98	70-130	4/21/14 18:39	
Toluene-d8	99	70-130	4/21/14 18:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0630
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 19:10

Sample Name: MW-33B
 Lab Code: R1402638-004

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7745.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	93	70-130	4/21/14 19:10	
Dibromofluoromethane	99	70-130	4/21/14 19:10	
Toluene-d8	99	70-130	4/21/14 19:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0650
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 03:17

Sample Name: TB-3
 Lab Code: R1402638-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7761.D

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 03:17	
Dibromofluoromethane	97	70-130	4/22/14 03:17	
Toluene-d8	97	70-130	4/22/14 03:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14

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)	25.4	mg/L	1.0	1	NA	4/22/14 13:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14

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 01:16	
Manganese, Dissolved	6010C	1080		µg/L	10	1	4/15/14	4/17/14 15:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 19:40

Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7746.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	390		4.0	
79-01-6	Trichloroethene (TCE)	77		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	81		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/21/14 19:40	
Dibromofluoromethane	100	70-130	4/21/14 19:40	
Toluene-d8	99	70-130	4/21/14 19:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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)	14.1	mg/L	1.0	1	NA	4/22/14 13:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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 01:35	
Manganese, Dissolved	6010C	3980		µg/L	10	1	4/15/14	4/17/14 15:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 17:37

Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7789.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	550		10	
79-01-6	Trichloroethene (TCE)	69		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	97		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 17:37	
Dibromofluoromethane	100	70-130	4/22/14 17:37	
Toluene-d8	99	70-130	4/22/14 17:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: AP-21 (23')
Lab Code: R1402638-008

Service Request: R1402638
Date Collected: 4/11/14 0900
Date Received: 4/14/14

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)	227	mg/L	4.0	4	NA	4/22/14 13:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: AP-21 (23')
Lab Code: R1402638-008

Service Request: R1402638
Date Collected: 4/11/14 0900
Date Received: 4/14/14

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 01:41	
Manganese, Dissolved	6010C	513		µg/L	10	1	4/15/14	4/17/14 15:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 20:41

Sample Name: AP-21 (23')
 Lab Code: R1402638-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7748.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	110	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	35	10	
107-06-2	1,2-Dichloroethane	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
67-64-1	Acetone	50 U	50	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-09-2	Methylene Chloride	10 U	10	
127-18-4	Tetrachloroethene (PCE)	830	10	
79-01-6	Trichloroethene (TCE)	470	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10 U	10	
75-01-4	Vinyl Chloride	10 U	10	
156-59-2	cis-1,2-Dichloroethene	5300 E	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/21/14 20:41	
Dibromofluoromethane	99	70-130	4/21/14 20:41	
Toluene-d8	98	70-130	4/21/14 20:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 18:07

Sample Name: AP-21 (23')
 Lab Code: R1402638-008
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7790.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	D	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	760	D	100	
79-01-6	Trichloroethene (TCE)	420	D	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	4900	D	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 18:07	
Dibromofluoromethane	99	70-130	4/22/14 18:07	
Toluene-d8	98	70-130	4/22/14 18:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14

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)	919		mg/L	20	20	NA	4/22/14 13:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	260	µg/L	100	1	4/15/14	4/17/14 01:48	
Manganese, Dissolved	6010C	50900	µg/L	200	20	4/15/14	4/17/14 16:05	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 21:11

Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7749.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	2.4		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	5.0		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)	25		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	94	70-130	4/21/14 21:11	
Dibromofluoromethane	99	70-130	4/21/14 21:11	
Toluene-d8	98	70-130	4/21/14 21:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 18:38

Sample Name: B-2 (11')
 Lab Code: R1402638-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7791.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	74		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	15		5.0	
156-59-2	cis-1,2-Dichloroethene	330		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	94	70-130	4/22/14 18:38	
Dibromofluoromethane	99	70-130	4/22/14 18:38	
Toluene-d8	98	70-130	4/22/14 18:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1030
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 19:08

Sample Name: OB38-DO (44')
 Lab Code: R1402638-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7792.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	57		2.0	
79-01-6	Trichloroethene (TCE)	99		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	45		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	3.4		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 19:08	
Dibromofluoromethane	99	70-130	4/22/14 19:08	
Toluene-d8	98	70-130	4/22/14 19:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14

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)	342		mg/L	4.0	4	NA	4/22/14 13:16	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14

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 01:55	
Manganese, Dissolved	6010C	194		µg/L	10	1	4/15/14	4/17/14 16:11	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 22:43

Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7752.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	3.0		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)	270	E	2.0	
79-01-6	Trichloroethene (TCE)	4200	E	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	72		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	23		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/21/14 22:43	
Dibromofluoromethane	98	70-130	4/21/14 22:43	
Toluene-d8	100	70-130	4/21/14 22:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 19:39

Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7793.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	240	D	200	
79-01-6	Trichloroethene (TCE)	11000	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	200	U	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 19:39	
Dibromofluoromethane	101	70-130	4/22/14 19:39	
Toluene-d8	100	70-130	4/22/14 19:39	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1130
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 03:47

Sample Name: EB-4
 Lab Code: R1402638-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7762.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	95	70-130	4/22/14 03:47	
Dibromofluoromethane	98	70-130	4/22/14 03:47	
Toluene-d8	98	70-130	4/22/14 03:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB27-BR (74')
 Lab Code: R1402638-014

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14

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)	36.6	mg/L	1.0	1	NA	4/22/14 13:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: OB27-BR (74')
Lab Code: R1402638-014

Service Request: R1402638
Date Collected: 4/11/14 1200
Date Received: 4/14/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	760	µg/L	100	1	4/15/14	4/17/14 02:01	
Manganese, Dissolved	6010C	370000	µg/L	2000	200	4/15/14	4/17/14 16:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 20:10

Sample Name: OB27-BR (74')
 Lab Code: R1402638-014

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042214\F7794.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	14		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)	57		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	95	70-130	4/22/14 20:10	
Dibromofluoromethane	101	70-130	4/22/14 20:10	
Toluene-d8	100	70-130	4/22/14 20:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 04:18

Sample Name: CL-11S (24')
 Lab Code: R1402638-015

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7763.D

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.9		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)	10		2.0	
79-01-6	Trichloroethene (TCE)	5.2		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	94	70-130	4/22/14 04:18	
Dibromofluoromethane	100	70-130	4/22/14 04:18	
Toluene-d8	99	70-130	4/22/14 04:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 04:48

Sample Name: CL-11DO (48')
 Lab Code: R1402638-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7764.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.8		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)	5.0		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	6.3		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)	3.7		2.0	
79-01-6	Trichloroethene (TCE)	25		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	94	70-130	4/22/14 04:48	
Dibromofluoromethane	98	70-130	4/22/14 04:48	
Toluene-d8	99	70-130	4/22/14 04:48	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/ 8/14 1300
 Date Received: 4/11/14
 Date Analyzed: 4/22/14 05:19

Sample Name: OB43-S (15')
 Lab Code: R1402638-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7765.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	3.7		2.0	
79-01-6	Trichloroethene (TCE)	4.0		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	93	70-130	4/22/14 05:19	
Dibromofluoromethane	98	70-130	4/22/14 05:19	
Toluene-d8	99	70-130	4/22/14 05:19	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0830
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 05:49

Sample Name: BR5 ZONE 1
 Lab Code: R1402638-018

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7766.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	9.1		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)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	60		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	72		2.0	
156-59-2	cis-1,2-Dichloroethene	90		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	4/22/14 05:49	
Dibromofluoromethane	100	70-130	4/22/14 05:49	
Toluene-d8	100	70-130	4/22/14 05:49	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 06:20

Sample Name: BR5 ZONE 2
 Lab Code: R1402638-019

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7767.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	18		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)	200	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	300	E	2.0	
156-59-2	cis-1,2-Dichloroethene	670	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	3.5		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/22/14 06:20	
Dibromofluoromethane	99	70-130	4/22/14 06:20	
Toluene-d8	99	70-130	4/22/14 06:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 20:40

Sample Name: BR5 ZONE 2
 Lab Code: R1402638-019
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7795.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	14	D	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	170	D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	280	D	10	
156-59-2	cis-1,2-Dichloroethene	630	D	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 20:40	
Dibromofluoromethane	102	70-130	4/22/14 20:40	
Toluene-d8	100	70-130	4/22/14 20:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: BR5 ZONE 3
Lab Code: R1402638-020

Service Request: R1402638
Date Collected: 4/11/14 0800
Date Received: 4/14/14

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)	136	mg/L	2.0	2	NA	4/22/14 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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 02:07	
Manganese, Dissolved	6010C	3100		µg/L	10	1	4/15/14	4/17/14 16:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 06:50

Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042114\F7768.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	5.7		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)	2.7		2.0	
79-01-6	Trichloroethene (TCE)	14		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	48		2.0	
156-59-2	cis-1,2-Dichloroethene	260	E	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	94	70-130	4/22/14 06:50	
Dibromofluoromethane	101	70-130	4/22/14 06:50	
Toluene-d8	98	70-130	4/22/14 06:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 21:10

Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7796.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	5.6	D	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)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	12	D	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	42	D	5.0	
156-59-2	cis-1,2-Dichloroethene	230	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	94	70-130	4/22/14 21:10	
Dibromofluoromethane	100	70-130	4/22/14 21:10	
Toluene-d8	100	70-130	4/22/14 21:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 07:21

Sample Name: CL9-BR ZONE 1
 Lab Code: R1402638-021

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7769.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	110		100	
79-01-6	Trichloroethene (TCE)	230		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	4900		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 07:21	
Dibromofluoromethane	98	70-130	4/22/14 07:21	
Toluene-d8	99	70-130	4/22/14 07:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 07:51

Sample Name: CL9-BR ZONE 2
 Lab Code: R1402638-022

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7770.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 25

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50 U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50 U	50	
79-00-5	1,1,2-Trichloroethane	50 U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50 U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50 U	50	
107-06-2	1,2-Dichloroethane	50 U	50	
78-87-5	1,2-Dichloropropane	50 U	50	
67-64-1	Acetone	250 U	250	
75-27-4	Bromodichloromethane	50 U	50	
75-25-2	Bromoform	50 U	50	
74-83-9	Bromomethane	50 U	50	
56-23-5	Carbon Tetrachloride	50 U	50	
108-90-7	Chlorobenzene	50 U	50	
75-00-3	Chloroethane	50 U	50	
67-66-3	Chloroform	50 U	50	
74-87-3	Chloromethane	50 U	50	
124-48-1	Dibromochloromethane	50 U	50	
75-09-2	Methylene Chloride	50 U	50	
127-18-4	Tetrachloroethene (PCE)	250	50	
79-01-6	Trichloroethene (TCE)	400	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50 U	50	
75-01-4	Vinyl Chloride	85	50	
156-59-2	cis-1,2-Dichloroethene	7400 E	50	
10061-01-5	cis-1,3-Dichloropropene	50 U	50	
156-60-5	trans-1,2-Dichloroethene	50 U	50	
10061-02-6	trans-1,3-Dichloropropene	50 U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/22/14 07:51	
Dibromofluoromethane	100	70-130	4/22/14 07:51	
Toluene-d8	99	70-130	4/22/14 07:51	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 21:41

Sample Name: CL9-BR ZONE 2
 Lab Code: R1402638-022
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7797.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	230	D	200	
79-01-6	Trichloroethene (TCE)	400	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	6700	D	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 21:41	
Dibromofluoromethane	100	70-130	4/22/14 21:41	
Toluene-d8	98	70-130	4/22/14 21:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1030
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 22:12

Sample Name: CL9-BR ZONE 3
 Lab Code: R1402638-023

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7798.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	66		20	
79-01-6	Trichloroethene (TCE)	71		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	52		20	
156-59-2	cis-1,2-Dichloroethene	1000		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	92	70-130	4/22/14 22:12	
Dibromofluoromethane	102	70-130	4/22/14 22:12	
Toluene-d8	93	70-130	4/22/14 22:12	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 08:52

Sample Name: BR6 ZONE 1
 Lab Code: R1402638-024

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7772.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	4.0		2.0	
156-59-2	cis-1,2-Dichloroethene	12		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	93	70-130	4/22/14 08:52	
Dibromofluoromethane	101	70-130	4/22/14 08:52	
Toluene-d8	98	70-130	4/22/14 08:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 09:22

Sample Name: BR6 ZONE 2
 Lab Code: R1402638-025

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7773.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	3.1		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	23		2.0	
156-59-2	cis-1,2-Dichloroethene	390	E	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	93	70-130	4/22/14 09:22	
Dibromofluoromethane	100	70-130	4/22/14 09:22	
Toluene-d8	97	70-130	4/22/14 09:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 22:42

Sample Name: BR6 ZONE 2
 Lab Code: R1402638-025
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7799.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10 U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10 U	10	
107-06-2	1,2-Dichloroethane	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
67-64-1	Acetone	50 U	50	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-09-2	Methylene Chloride	10 U	10	
127-18-4	Tetrachloroethene (PCE)	10 U	10	
79-01-6	Trichloroethene (TCE)	10 U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10 U	10	
75-01-4	Vinyl Chloride	22 D	10	
156-59-2	cis-1,2-Dichloroethene	350 D	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 22:42	
Dibromofluoromethane	102	70-130	4/22/14 22:42	
Toluene-d8	99	70-130	4/22/14 22:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 09:53

Sample Name: BR6 ZONE 3
 Lab Code: R1402638-026

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7774.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	2.1		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	78		2.0	
156-59-2	cis-1,2-Dichloroethene	170		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	94	70-130	4/22/14 09:53	
Dibromofluoromethane	101	70-130	4/22/14 09:53	
Toluene-d8	96	70-130	4/22/14 09:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1330
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 15:26

Sample Name: CL8-BR ZONE 1
 Lab Code: R1402638-027

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J5000.D\

Analysis Lot: 389276
 Instrument Name: R-MS-12
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	95		50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	10	U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/22/14 15:26	
Dibromofluoromethane	103	70-130	4/22/14 15:26	
Toluene-d8	97	70-130	4/22/14 15:26	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1400
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 10:54

Sample Name: CL8-BR ZONE 2
 Lab Code: R1402638-028

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7776.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 10:54	
Dibromofluoromethane	101	70-130	4/22/14 10:54	
Toluene-d8	97	70-130	4/22/14 10:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1430
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 11:24

Sample Name: CL8-BR ZONE 3
 Lab Code: R1402638-029

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7777.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	94	70-130	4/22/14 11:24	
Dibromofluoromethane	99	70-130	4/22/14 11:24	
Toluene-d8	97	70-130	4/22/14 11:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1402638-MB

Service Request: R1402638
Date Collected: NA
Date Received: NA
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)	1.0 U	mg/L	1.0	1	NA	4/22/14 13:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402638-MB

Service Request: R1402638
 Date Collected: NA
 Date Received: NA

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	4/16/14 23:10	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	4/15/14	4/17/14 14:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/21/14 14:37

Sample Name: Method Blank
 Lab Code: RQ1404008-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7736.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	94	70-130	4/21/14 14:37	
Dibromofluoromethane	99	70-130	4/21/14 14:37	
Toluene-d8	100	70-130	4/21/14 14:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 02:47

Sample Name: Method Blank
 Lab Code: RQ1404087-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7760.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	94	70-130	4/22/14 02:47	
Dibromofluoromethane	99	70-130	4/22/14 02:47	
Toluene-d8	98	70-130	4/22/14 02:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403997-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\msvoa12\Data\042214\J4998.D\

Analysis Lot: 389276
 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	4/22/14 14:22	
Dibromofluoromethane	100	70-130	4/22/14 14:22	
Toluene-d8	98	70-130	4/22/14 14:22	

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 16:04

Sample Name: Method Blank
 Lab Code: RQ1404075-02

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7786.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 16:04	
Dibromofluoromethane	98	70-130	4/22/14 16:04	
Toluene-d8	97	70-130	4/22/14 16:04	

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402638-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Chloride	SM 4500-Cl-E-1997(20)	23.8	25.0	95	86 - 110

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: R1402638
Date Analyzed: 4/16/14 -
4/17/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402638-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Iron, Dissolved	6010C	1040	1000	104	80 - 120
Manganese, Dissolved	6010C	489	500	98	80 - 120

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.



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

Service Request: R1402638
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389045

Analyte Name	Lab Control Sample RQ1404008-02			Duplicate Lab Control Sample RQ1404008-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	19.7	20.0	99	17.2	20.0	86	70 - 130	14	20
1,1,2,2-Tetrachloroethane	20.1	20.0	100	19.0	20.0	95	70 - 130	6	20
1,1,2-Trichloroethane	21.2	20.0	106	19.0	20.0	95	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	21.3	20.0	106	18.9	20.0	95	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	23.4	20.0	117	20.3	20.0	102	70 - 130	14	20
1,2-Dichloroethane	18.8	20.0	94	16.9	20.0	84	70 - 130	11	20
1,2-Dichloropropane	22.2	20.0	111	19.3	20.0	97	70 - 130	14	20
Acetone	21.6	20.0	108	22.0	20.0	110	40 - 160	2	20
Bromodichloromethane	20.9	20.0	105	18.6	20.0	93	70 - 130	12	20
Bromoform	19.9	20.0	100	18.5	20.0	93	70 - 130	7	20
Bromomethane	32.7	20.0	163 *	28.4	20.0	142	40 - 160	14	20
Carbon Tetrachloride	19.8	20.0	99	17.7	20.0	89	70 - 130	11	20
Chlorobenzene	21.0	20.0	105	18.6	20.0	93	70 - 130	12	20
Chloroethane	20.3	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloroform	20.2	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloromethane	22.9	20.0	114	20.2	20.0	101	40 - 160	12	20
Dibromochloromethane	21.2	20.0	106	18.7	20.0	94	70 - 130	12	20
Methylene Chloride	21.4	20.0	107	19.5	20.0	97	70 - 130	9	20
Tetrachloroethene (PCE)	20.7	20.0	103	18.7	20.0	93	70 - 130	10	20
Trichloroethene (TCE)	20.7	20.0	104	18.2	20.0	91	70 - 130	13	20
Trichlorofluoromethane (CFC 11)	19.2	20.0	96	16.8	20.0	84	70 - 130	13	20
Vinyl Chloride	21.7	20.0	108	19.6	20.0	98	70 - 130	10	20
cis-1,2-Dichloroethene	20.5	20.0	102	18.3	20.0	91	70 - 130	12	20
cis-1,3-Dichloropropene	21.1	20.0	105	18.9	20.0	94	70 - 130	11	20
trans-1,2-Dichloroethene	20.9	20.0	105	18.4	20.0	92	70 - 130	13	20
trans-1,3-Dichloropropene	20.7	20.0	103	18.1	20.0	91	70 - 130	13	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.

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389276

Analyte Name	Lab Control Sample RQ1403997-03			Duplicate Lab Control Sample RQ1403997-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	21.3	20.0	107	20.3	20.0	102	70 - 130	5	20
1,1,2,2-Tetrachloroethane	20.3	20.0	102	19.4	20.0	97	70 - 130	4	20
1,1,2-Trichloroethane	20.7	20.0	103	20.3	20.0	101	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	19.9	20.0	100	19.3	20.0	97	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	23.2	20.0	116	22.5	20.0	112	70 - 130	3	20
1,2-Dichloroethane	21.8	20.0	109	21.0	20.0	105	70 - 130	3	20
1,2-Dichloropropane	20.2	20.0	101	19.3	20.0	96	70 - 130	4	20
Acetone	21.1	20.0	106	21.8	20.0	109	40 - 160	3	20
Bromodichloromethane	22.2	20.0	111	21.7	20.0	108	70 - 130	2	20
Bromoform	22.1	20.0	111	20.9	20.0	104	70 - 130	6	20
Bromomethane	23.9	20.0	119	22.0	20.0	110	40 - 160	8	20
Carbon Tetrachloride	22.0	20.0	110	20.5	20.0	102	70 - 130	7	20
Chlorobenzene	21.2	20.0	106	20.5	20.0	103	70 - 130	3	20
Chloroethane	22.3	20.0	112	21.6	20.0	108	70 - 130	3	20
Chloroform	20.3	20.0	102	19.6	20.0	98	70 - 130	3	20
Chloromethane	22.5	20.0	113	21.4	20.0	107	40 - 160	5	20
Dibromochloromethane	22.3	20.0	112	22.2	20.0	111	70 - 130	<1	20
Methylene Chloride	19.6	20.0	98	19.3	20.0	96	70 - 130	2	20
Tetrachloroethene (PCE)	22.4	20.0	112	20.8	20.0	104	70 - 130	8	20
Trichloroethene (TCE)	21.9	20.0	109	21.0	20.0	105	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	20.4	20.0	102	70 - 130	6	20
Vinyl Chloride	23.3	20.0	116	22.3	20.0	112	70 - 130	4	20
cis-1,2-Dichloroethene	19.9	20.0	99	19.2	20.0	96	70 - 130	3	20
cis-1,3-Dichloropropene	21.0	20.0	105	20.0	20.0	100	70 - 130	5	20
trans-1,2-Dichloroethene	21.4	20.0	107	20.1	20.0	100	70 - 130	6	20
trans-1,3-Dichloropropene	22.2	20.0	111	21.6	20.0	108	70 - 130	2	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.

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389330

Analyte Name	Lab Control Sample RQ1404075-03			Duplicate Lab Control Sample RQ1404075-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	19.0	20.0	95	70 - 130	6	20
1,1,2,2-Tetrachloroethane	21.6	20.0	108	19.7	20.0	99	70 - 130	9	20
1,1,2-Trichloroethane	22.1	20.0	110	20.2	20.0	101	70 - 130	9	20
1,1-Dichloroethane (1,1-DCA)	21.2	20.0	106	20.7	20.0	104	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	23.3	20.0	116	22.7	20.0	113	70 - 130	3	20
1,2-Dichloroethane	19.2	20.0	96	18.2	20.0	91	70 - 130	5	20
1,2-Dichloropropane	23.0	20.0	115	21.3	20.0	107	70 - 130	8	20
Acetone	23.4	20.0	117	18.4	20.0	92	40 - 160	24 *	20
Bromodichloromethane	21.4	20.0	107	20.0	20.0	100	70 - 130	7	20
Bromoform	21.5	20.0	108	21.0	20.0	105	70 - 130	2	20
Bromomethane	19.9	20.0	99	19.8	20.0	99	40 - 160	<1	20
Carbon Tetrachloride	19.9	20.0	100	18.5	20.0	93	70 - 130	7	20
Chlorobenzene	21.5	20.0	107	19.9	20.0	99	70 - 130	8	20
Chloroethane	20.7	20.0	104	19.3	20.0	96	70 - 130	7	20
Chloroform	20.4	20.0	102	19.8	20.0	99	70 - 130	3	20
Chloromethane	23.5	20.0	118	21.8	20.0	109	40 - 160	8	20
Dibromochloromethane	22.8	20.0	114	20.8	20.0	104	70 - 130	9	20
Methylene Chloride	21.8	20.0	109	20.7	20.0	103	70 - 130	5	20
Tetrachloroethene (PCE)	21.9	20.0	110	19.8	20.0	99	70 - 130	10	20
Trichloroethene (TCE)	20.4	20.0	102	20.1	20.0	100	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	19.1	20.0	95	18.4	20.0	92	70 - 130	3	20
Vinyl Chloride	22.0	20.0	110	21.0	20.0	105	70 - 130	5	20
cis-1,2-Dichloroethene	21.3	20.0	106	19.7	20.0	98	70 - 130	8	20
cis-1,3-Dichloropropene	21.6	20.0	108	20.3	20.0	102	70 - 130	6	20
trans-1,2-Dichloroethene	21.4	20.0	107	20.5	20.0	103	70 - 130	4	20
trans-1,3-Dichloropropene	21.7	20.0	108	20.1	20.0	101	70 - 130	7	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: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389046

Analyte Name	Lab Control Sample RQ1404087-02			Duplicate Lab Control Sample RQ1404087-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.1	20.0	90	16.0	20.0	80	70 - 130	12	20
1,1,2,2-Tetrachloroethane	18.9	20.0	94	17.2	20.0	86	70 - 130	9	20
1,1,2-Trichloroethane	22.5	20.0	113	20.3	20.0	102	70 - 130	10	20
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	102	18.1	20.0	90	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	20.6	20.0	103	18.6	20.0	93	70 - 130	10	20
1,2-Dichloroethane	19.9	20.0	100	17.7	20.0	88	70 - 130	12	20
1,2-Dichloropropane	22.6	20.0	113	19.6	20.0	98	70 - 130	14	20
Acetone	24.6	20.0	123	19.8	20.0	99	40 - 160	22 *	20
Bromodichloromethane	21.4	20.0	107	18.5	20.0	92	70 - 130	14	20
Bromoform	22.3	20.0	111	20.0	20.0	100	70 - 130	11	20
Bromomethane	30.1	20.0	150	26.4	20.0	132	40 - 160	13	20
Carbon Tetrachloride	17.6	20.0	88	15.3	20.0	76	70 - 130	14	20
Chlorobenzene	20.4	20.0	102	18.0	20.0	90	70 - 130	13	20
Chloroethane	19.0	20.0	95	16.1	20.0	81	70 - 130	17	20
Chloroform	19.7	20.0	99	17.8	20.0	89	70 - 130	10	20
Chloromethane	21.5	20.0	108	19.4	20.0	97	40 - 160	10	20
Dibromochloromethane	22.4	20.0	112	19.8	20.0	99	70 - 130	13	20
Methylene Chloride	22.1	20.0	110	19.7	20.0	98	70 - 130	12	20
Tetrachloroethene (PCE)	18.5	20.0	92	16.9	20.0	84	70 - 130	9	20
Trichloroethene (TCE)	22.5	20.0	113	19.3	20.0	96	70 - 130	15	20
Trichlorofluoromethane (CFC 11)	16.7	20.0	84	15.1	20.0	76	70 - 130	10	20
Vinyl Chloride	20.0	20.0	100	17.8	20.0	89	70 - 130	11	20
cis-1,2-Dichloroethene	20.1	20.0	100	17.8	20.0	89	70 - 130	12	20
cis-1,3-Dichloropropene	20.9	20.0	104	18.1	20.0	90	70 - 130	14	20
trans-1,2-Dichloroethene	20.1	20.0	101	17.6	20.0	88	70 - 130	13	20
trans-1,3-Dichloropropene	21.5	20.0	108	18.6	20.0	93	70 - 130	15	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.





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		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021				PRELIMINARY ANALYSIS (List in comments below)	
Phone # 617-589-6102		E-mail Raymond.Cadorette@cbi.com		METALS, TOTAL (List in comments below)	
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name DANIEL C. VERRY		METALS, DISSOLVED (List in comments below)	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY		PCBS (List in comments below)	
		LAB ID	SAMPLING DATE	TIME	MATRIX
STRHA-7A			4/10/14	1300	GW
STRHA-7B			4/10/14	1330	
OB24-S			4/10/14	1400	
MW-33B			4/11/14	0630	
TB-3			4/11/14	0650	
AP-19 (25')			4/11/14	0715	
AP-20 (16')			4/11/14	0800	
AP-21 (23')			4/11/14	0900	
AP-22 (20')			4/11/14	0930	
B-2 (11')			4/11/14	1000	

Preservative Key
 0. NONE
 1. HCL
 2. HNO3
 3. H2SO4
 4. NaOH
 5. Zn-Acetate
 6. MeOH
 7. NaHSO4
 8. Other _____

REMARKS/
ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
 Metals = Field filtered
 Site specific VOC list.
 Massachusetts CAM analyses reporting and QA/QC.
 Please email GISKEY formatted EDD & PDF of report to:
 Catherine.Joe@cbi.com.

TURNAROUND REQUIREMENTS
 RUSH (SURCHARGES APPLY)
 1 day 2 day 3 day
 4 day 5 day
 Standard

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

INVOICE INFORMATION
 PO #: 873489
 BILL TO: CB&I

R1402638
 CB&I Environmental & Infrastructure
 Varian Beverly

Requested Report Date
 Relinquished by
 Edata Yes No

RECEIVED BY
 Signature
 Printed Name
 Firm
 Date/Time

RECEIVED BY
 Signature
 Printed Name
 Firm
 Date/Time

RECEIVED BY
 Signature
 Printed Name
 Firm
 Date/Time

Project Name Varian Beverly		Project Number 150148-05000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)				
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE 1	NUMBER OF CONTAINERS 20	REMARKS/ALTERNATE DESCRIPTION	INVOICE INFORMATION PO #: 873489 BILL TO: CB&I	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		E-mail Raymond.Cadorette@CBI.com		<p>Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other</p>				R1402638 CB&I Environmental & Infrastructure Varian Beverly 7 Y
Phone # 617-589-6102		Sampler's Printed Name DAVID A. Cady		METALS, TOTAL (List in comments below) <input type="checkbox"/> 8082 <input type="checkbox"/> 608 PCBs <input type="checkbox"/> 8081 <input type="checkbox"/> 608 PESTICIDES <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 GC/MS VOAs <input type="checkbox"/> 8270 <input type="checkbox"/> 625 GC/MS SVOAs <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> CLP		REPORT REQUIREMENTS <input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + OC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + OC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data Edata <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No RELINQUISHED BY Signature Printed Name Firm Date/Time		
Sampler's Signature <i>Clayton D. Terry</i>		Sampler's Signature <i>DAVID A. Cady</i>		METALS, DISSOLVED Fe+ (List in comments below) Chloride			SPECIAL INSTRUCTIONS/COMMENTS Metals = Field Filtered Site specific VOC list. Massachusetts CAM analyses reporting and QA/QC. Please email GISKey formatted EDD & PDF of report to: Catherine.Joe@CBI.com. 0643-S(15) added as per formula See OAPP <input type="checkbox"/> Haley STATE WHERE SAMPLES WERE COLLECTED: MA 01414 DATE/TIME: 4/11/14	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX				
OB38-DO (44')		4/11/14	1030	GW	3			
AP-27-DO (56')		4/11/14	1100		5			
EB-4		4/11/14	1130		3			
OB27-BR (74')		4/11/14	1200		5			
CL-115 (24')		4/11/14	1230		3			
OB-1120 (48')		4/11/14	1300		3			
OB43-S (15')		4/8/14	1300		3			
SPECIAL INSTRUCTIONS/COMMENTS RECEIVED BY Signature Printed Name Firm Date/Time		RECEIVED BY Signature Printed Name Firm Date/Time		RECEIVED BY Signature Printed Name Firm Date/Time		RECEIVED BY Signature Printed Name Firm Date/Time		



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 3 OF 4

Project Name Varian Beverly		Project Number 150148-05000000		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Raymond Cadorette		Report CC		PRESERVATIVE	
Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021		E-mail Raymond.Cadorette@cbi.com		PRESERVATIVE	
Phone # 617-589-6102		Sampler's Printed Name Raymond Cadorette		NUMBER OF CONTAINERS	
Sampler's Signature		FOR OFFICE USE ONLY		MATRIX	
CLIENT SAMPLE ID	LAB ID	DATE	SAMPLING TIME	MATRIX	
BR5 Zone 1		4/1/14	0830	GW	
BR5 Zone 2			0900		
BR5 Zone 3			0800		
CH9-BR Zone 1			0930		
CH9-AR Zone 2			0000		
CH9-BR Zone 3			1030		
BR6 Zone 1			1800		
BR6 Zone 2			1230		
BR6 Zone 3			1300		
CH8-BR Zone 1			1330		

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.	TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day <input checked="" type="checkbox"/> Standard	REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMASD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	INVOICE INFORMATION PO #: 873489 BILL TO: CB&I
	REQUESTED REPORT DATE	Edite <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	RECEIVED BY

RECEIVED BY	RELINQUISHED BY
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Printed Name: <i>[Name]</i>	Printed Name: <i>[Name]</i>
Firm: <i>[Firm]</i>	Firm: <i>[Firm]</i>
Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>

STATE WHERE SAMPLES WERE COLLECTED:	RECEIVED BY
MA	Signature: <i>[Signature]</i>
	Printed Name: <i>[Name]</i>
	Firm: <i>[Firm]</i>
	Date/Time: <i>[Date/Time]</i>

See OAPP <input type="checkbox"/>	RELINQUISHED BY
	Signature: <i>[Signature]</i>
	Printed Name: <i>[Name]</i>
	Firm: <i>[Firm]</i>
	Date/Time: <i>[Date/Time]</i>

RECEIVED BY	RELINQUISHED BY
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Printed Name: <i>[Name]</i>	Printed Name: <i>[Name]</i>
Firm: <i>[Firm]</i>	Firm: <i>[Firm]</i>
Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>



Cooler Receipt and Preservation Check Form

Project/Client COTE Folder Number 214-2638

Cooler received on 4/14/14 by: Q 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 signed
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? melted 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: 13.1°

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: 4/14/14 0828

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	<u>R-002</u>	by <u>Q</u>	on <u>4/14/14</u>	at <u>0833</u>
5035 samples placed in storage location		by	on	at

PC Secondary Review: SMU 4/14/14

Cooler Breakdown: Date: 4/14/14 Time: 1456 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	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO							
≥12	NaOH									
≤2	HNO ₃	<input checked="" type="checkbox"/>		<u>check</u>						
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	<u>check</u>						

Bottle lot numbers: _____

Other Comments:

* TB-3 was labeled as ED-3. This was determined because date & time matched up for missing sample.

PC Secondary Review: SMU 4/24/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Cooler Receipt and Preservation Check Form

Project/Client OB&T Folder Number 114-2595

Cooler received on 4/11 by: JCS 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/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
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 JCS on 4/11/14 at 0906
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JMS 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 0804 by: JCS

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			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO							
≥12	NaOH									No = Samples were preserved at lab as listed
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						PM OK to Adjust: _____
	Na ₂ S ₂ O ₃	-	-						*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet	
	Zn Aceta	-	-							
	HCl	*	*	<u>4112120</u>	<u>3/15</u>					

Bottle lot numbers: 4-002-003
Other Comments:

labels on samples 17, 18, 20 do not match the ID's on coc.
this temp sheet applicable to OB43-5 (15')

PC Secondary Review: JMS 4/24/14

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

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc **Job Number :** 150151.18
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. :** R1402683
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
4/10/14	VOC TO-15		30 Days	4/18/14

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 4/18/2014

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:

(1) 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.

(2) various compounds for BLDG2-6 and BLDG2-7 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 25, 2014

Service Request No: R1402638

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 between April 11, 2014 and April 14, 2014. For your reference, these analyses have been assigned our service request number **R1402638**.

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: Pemilla Haley

Page 1 of 76

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475

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00001

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402638
Project Number: 150148-05000000
Date Received: 04/14/14

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 04/08-11/14 and received at ALS in good condition at cooler temperatures of 5.5 – 13.1 °C as noted on the cooler receipt and preservation check form. The client was notified of the out of temperature cooler and the samples were analyzed. 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 nine 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 AO-21 (23'), AP-27-DO (56'), BR5 ZONE 2, BR5 ZONE 3, CL9-BR ZONE 2 and BR6 ZONE 2 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 except Bromomethane was outside limits high on the 04/21/14 LCS. All RPD's were acceptable except Acetone was outside limits on 04/22/14 RPD's. 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

Seven water samples were analyzed for Chloride by SM3400-CI-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.

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):
 R1402638-001-029

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/>	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
----------	---	-----------------------

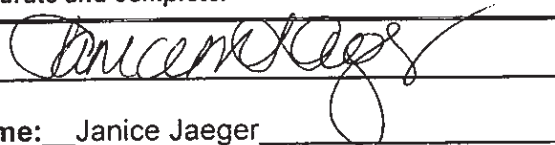
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

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

¹All 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: 04/29/14
00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402638

<u>Lab ID</u>	<u>Client ID</u>
R1402638-001	STRHA-7A
R1402638-002	STRHA-7B
R1402638-003	OB24-S
R1402638-004	MW-33B
R1402638-005	TB-3
R1402638-006	AP-19 (25')
R1402638-007	AP-20 (16')
R1402638-008	AP-21 (23')
R1402638-009	AP-22 (20')
R1402638-010	B-2 (11')
R1402638-011	OB38-DO (44')
R1402638-012	AP-27-DO (56')
R1402638-013	EB-4
R1402638-014	OB27-BR (74')
R1402638-015	CL-11S (24')
R1402638-016	CL-11DO (48')
R1402638-017	OB43-S (15')
R1402638-018	BR5 ZONE 1
R1402638-019	BR5 ZONE 2
R1402638-020	BR5 ZONE 3
R1402638-021	CL9-BR ZONE 1
R1402638-022	CL9-BR ZONE 2
R1402638-023	CL9-BR ZONE 3
R1402638-024	BR6 ZONE 1
R1402638-025	BR6 ZONE 2
R1402638-026	BR6 ZONE 3
R1402638-027	CL8-BR ZONE 1
R1402638-028	CL8-BR ZONE 2
R1402638-029	CL8-BR ZONE 3

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

RIGHT SOLUTIONS | RIGHT PARTNER



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.

A handwritten signature in cursive script, appearing to read "Jacob C. Jacobs".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

**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
<u>Analytes</u>			<u>Methods</u>	
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	

June 25, 2013

*= Provisional Certification

Page 1 of 2

00008

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

<u>Analytes</u>	<u>Methods</u>
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/150148-05000000
 Sample Matrix: Water

Service Request: R1402638
 Date Collected: 4/10/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 17:39

Sample Name: STRHA-7A
 Lab Code: R1402638-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7742.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	8.8		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	9.7		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	4/21/14 17:39	
Dibromofluoromethane	98	70-130	4/21/14 17:39	
Toluene-d8	97	70-130	4/21/14 17:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/10/14 1330
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 18:09

Sample Name: STRHA-7B
 Lab Code: R1402638-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7743.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	9.9		2.0	
79-01-6	Trichloroethene (TCE)	42		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	94	70-130	4/21/14 18:09	
Dibromofluoromethane	96	70-130	4/21/14 18:09	
Toluene-d8	91	70-130	4/21/14 18:09	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/10/14 1400
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 18:39

Sample Name: OB24-S
 Lab Code: R1402638-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7744.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	4/21/14 18:39	
Dibromofluoromethane	98	70-130	4/21/14 18:39	
Toluene-d8	99	70-130	4/21/14 18:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0630
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 19:10

Sample Name: MW-33B
 Lab Code: R1402638-004

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7745.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	93	70-130	4/21/14 19:10	
Dibromofluoromethane	99	70-130	4/21/14 19:10	
Toluene-d8	99	70-130	4/21/14 19:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0650
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 03:17

Sample Name: TB-3
 Lab Code: R1402638-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042114\F7761.D

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 03:17	
Dibromofluoromethane	97	70-130	4/22/14 03:17	
Toluene-d8	97	70-130	4/22/14 03:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14

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)	25.4	mg/L	1.0	1	NA	4/22/14 13:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14

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 01:16	
Manganese, Dissolved	6010C	1080		µg/L	10	1	4/15/14	4/17/14 15:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0715
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 19:40

Sample Name: AP-19 (25')
 Lab Code: R1402638-006

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7746.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	390		4.0	
79-01-6	Trichloroethene (TCE)	77		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	81		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/21/14 19:40	
Dibromofluoromethane	100	70-130	4/21/14 19:40	
Toluene-d8	99	70-130	4/21/14 19:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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)	14.1	mg/L	1.0	1	NA	4/22/14 13:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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 01:35	
Manganese, Dissolved	6010C	3980		µg/L	10	1	4/15/14	4/17/14 15:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 17:37

Sample Name: AP-20 (16')
 Lab Code: R1402638-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7789.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	550		10	
79-01-6	Trichloroethene (TCE)	69		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	97		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 17:37	
Dibromofluoromethane	100	70-130	4/22/14 17:37	
Toluene-d8	99	70-130	4/22/14 17:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: AP-21 (23')
Lab Code: R1402638-008

Service Request: R1402638
Date Collected: 4/11/14 0900
Date Received: 4/14/14

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)	227	mg/L	4.0	4	NA	4/22/14 13:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-21 (23')
 Lab Code: R1402638-008

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14

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 01:41	
Manganese, Dissolved	6010C	513		µg/L	10	1	4/15/14	4/17/14 15:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 20:41

Sample Name: AP-21 (23')
 Lab Code: R1402638-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7748.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	110	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	35	10	
107-06-2	1,2-Dichloroethane	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
67-64-1	Acetone	50 U	50	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-09-2	Methylene Chloride	10 U	10	
127-18-4	Tetrachloroethene (PCE)	830	10	
79-01-6	Trichloroethene (TCE)	470	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10 U	10	
75-01-4	Vinyl Chloride	10 U	10	
156-59-2	cis-1,2-Dichloroethene	5300 E	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/21/14 20:41	
Dibromofluoromethane	99	70-130	4/21/14 20:41	
Toluene-d8	98	70-130	4/21/14 20:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 18:07

Sample Name: AP-21 (23')
 Lab Code: R1402638-008
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7790.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	D	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	760	D	100	
79-01-6	Trichloroethene (TCE)	420	D	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	4900	D	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 18:07	
Dibromofluoromethane	99	70-130	4/22/14 18:07	
Toluene-d8	98	70-130	4/22/14 18:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14

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)	919	mg/L	20	20	NA	4/22/14 13:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	260	µg/L	100	1	4/15/14	4/17/14 01:48	
Manganese, Dissolved	6010C	50900	µg/L	200	20	4/15/14	4/17/14 16:05	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 21:11

Sample Name: AP-22 (20')
 Lab Code: R1402638-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7749.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	2.4		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	5.0		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)	25		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	94	70-130	4/21/14 21:11	
Dibromofluoromethane	99	70-130	4/21/14 21:11	
Toluene-d8	98	70-130	4/21/14 21:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 18:38

Sample Name: B-2 (11')
 Lab Code: R1402638-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7791.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	74		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	15		5.0	
156-59-2	cis-1,2-Dichloroethene	330		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	94	70-130	4/22/14 18:38	
Dibromofluoromethane	99	70-130	4/22/14 18:38	
Toluene-d8	98	70-130	4/22/14 18:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1030
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 19:08

Sample Name: OB38-DO (44')
 Lab Code: R1402638-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7792.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	57		2.0	
79-01-6	Trichloroethene (TCE)	99		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	45		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	3.4		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 19:08	
Dibromofluoromethane	99	70-130	4/22/14 19:08	
Toluene-d8	98	70-130	4/22/14 19:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14

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)	342	mg/L	4.0	4	NA	4/22/14 13:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14

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 01:55	
Manganese, Dissolved	6010C	194		µg/L	10	1	4/15/14	4/17/14 16:11	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14
 Date Analyzed: 4/21/14 22:43

Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7752.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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)	3.0		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)	270	E	2.0	
79-01-6	Trichloroethene (TCE)	4200	E	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	72		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	23		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/21/14 22:43	
Dibromofluoromethane	98	70-130	4/21/14 22:43	
Toluene-d8	100	70-130	4/21/14 22:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1100
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 19:39

Sample Name: AP-27-DO (56')
 Lab Code: R1402638-012
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7793.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	240	D	200	
79-01-6	Trichloroethene (TCE)	11000	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	200	U	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 19:39	
Dibromofluoromethane	101	70-130	4/22/14 19:39	
Toluene-d8	100	70-130	4/22/14 19:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1130
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 03:47

Sample Name: EB-4
 Lab Code: R1402638-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7762.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	95	70-130	4/22/14 03:47	
Dibromofluoromethane	98	70-130	4/22/14 03:47	
Toluene-d8	98	70-130	4/22/14 03:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB27-BR (74')
 Lab Code: R1402638-014

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14

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)	36.6	mg/L	1.0	1	NA	4/22/14 13:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: OB27-BR (74')
 Lab Code: R1402638-014

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	760	µg/L	100	1	4/15/14	4/17/14 02:01	
Manganese, Dissolved	6010C	370000	µg/L	2000	200	4/15/14	4/17/14 16:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 20:10

Sample Name: OB27-BR (74')
 Lab Code: R1402638-014

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042214\F7794.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	14		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)	57		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	95	70-130	4/22/14 20:10	
Dibromofluoromethane	101	70-130	4/22/14 20:10	
Toluene-d8	100	70-130	4/22/14 20:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 04:18

Sample Name: CL-11S (24')
 Lab Code: R1402638-015

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7763.D

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.9		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)	10		2.0	
79-01-6	Trichloroethene (TCE)	5.2		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	94	70-130	4/22/14 04:18	
Dibromofluoromethane	100	70-130	4/22/14 04:18	
Toluene-d8	99	70-130	4/22/14 04:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 04:48

Sample Name: CL-11DO (48')
 Lab Code: R1402638-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7764.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.8		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)	5.0		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	6.3		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)	3.7		2.0	
79-01-6	Trichloroethene (TCE)	25		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	94	70-130	4/22/14 04:48	
Dibromofluoromethane	98	70-130	4/22/14 04:48	
Toluene-d8	99	70-130	4/22/14 04:48	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/ 8/14 1300
 Date Received: 4/11/14
 Date Analyzed: 4/22/14 05:19

Sample Name: OB43-S (15')
 Lab Code: R1402638-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7765.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	3.7		2.0	
79-01-6	Trichloroethene (TCE)	4.0		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	93	70-130	4/22/14 05:19	
Dibromofluoromethane	98	70-130	4/22/14 05:19	
Toluene-d8	99	70-130	4/22/14 05:19	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0830
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 05:49

Sample Name: BR5 ZONE 1
 Lab Code: R1402638-018

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7766.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	9.1		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)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	60		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	72		2.0	
156-59-2	cis-1,2-Dichloroethene	90		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	4/22/14 05:49	
Dibromofluoromethane	100	70-130	4/22/14 05:49	
Toluene-d8	100	70-130	4/22/14 05:49	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 06:20

Sample Name: BR5 ZONE 2
 Lab Code: R1402638-019

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7767.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	18		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)	200	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	300	E	2.0	
156-59-2	cis-1,2-Dichloroethene	670	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	3.5		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/22/14 06:20	
Dibromofluoromethane	99	70-130	4/22/14 06:20	
Toluene-d8	99	70-130	4/22/14 06:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0900
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 20:40

Sample Name: BR5 ZONE 2
 Lab Code: R1402638-019
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7795.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10 U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	14 D	10	
107-06-2	1,2-Dichloroethane	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
67-64-1	Acetone	50 U	50	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-09-2	Methylene Chloride	10 U	10	
127-18-4	Tetrachloroethene (PCE)	10 U	10	
79-01-6	Trichloroethene (TCE)	170 D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10 U	10	
75-01-4	Vinyl Chloride	280 D	10	
156-59-2	cis-1,2-Dichloroethene	630 D	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 20:40	
Dibromofluoromethane	102	70-130	4/22/14 20:40	
Toluene-d8	100	70-130	4/22/14 20:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: BR5 ZONE 3
Lab Code: R1402638-020

Service Request: R1402638
Date Collected: 4/11/14 0800
Date Received: 4/14/14

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)	136	mg/L	2.0	2	NA	4/22/14 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14

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 02:07	
Manganese, Dissolved	6010C	3100		µg/L	10	1	4/15/14	4/17/14 16:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 06:50

Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7768.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	5.7		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)	2.7		2.0	
79-01-6	Trichloroethene (TCE)	14		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	48		2.0	
156-59-2	cis-1,2-Dichloroethene	260	E	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	94	70-130	4/22/14 06:50	
Dibromofluoromethane	101	70-130	4/22/14 06:50	
Toluene-d8	98	70-130	4/22/14 06:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0800
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 21:10

Sample Name: BR5 ZONE 3
 Lab Code: R1402638-020
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7796.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	5.6	D	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)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	12	D	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	42	D	5.0	
156-59-2	cis-1,2-Dichloroethene	230	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	94	70-130	4/22/14 21:10	
Dibromofluoromethane	100	70-130	4/22/14 21:10	
Toluene-d8	100	70-130	4/22/14 21:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 0930
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 07:21

Sample Name: CL9-BR ZONE 1
 Lab Code: R1402638-021

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7769.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	110		100	
79-01-6	Trichloroethene (TCE)	230		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	4900		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 07:21	
Dibromofluoromethane	98	70-130	4/22/14 07:21	
Toluene-d8	99	70-130	4/22/14 07:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 07:51

Sample Name: CL9-BR ZONE 2
 Lab Code: R1402638-022

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7770.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 Dilution Factor: 25

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50 U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50 U	50	
79-00-5	1,1,2-Trichloroethane	50 U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50 U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50 U	50	
107-06-2	1,2-Dichloroethane	50 U	50	
78-87-5	1,2-Dichloropropane	50 U	50	
67-64-1	Acetone	250 U	250	
75-27-4	Bromodichloromethane	50 U	50	
75-25-2	Bromoform	50 U	50	
74-83-9	Bromomethane	50 U	50	
56-23-5	Carbon Tetrachloride	50 U	50	
108-90-7	Chlorobenzene	50 U	50	
75-00-3	Chloroethane	50 U	50	
67-66-3	Chloroform	50 U	50	
74-87-3	Chloromethane	50 U	50	
124-48-1	Dibromochloromethane	50 U	50	
75-09-2	Methylene Chloride	50 U	50	
127-18-4	Tetrachloroethene (PCE)	250	50	
79-01-6	Trichloroethene (TCE)	400	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50 U	50	
75-01-4	Vinyl Chloride	85	50	
156-59-2	cis-1,2-Dichloroethene	7400 E	50	
10061-01-5	cis-1,3-Dichloropropene	50 U	50	
156-60-5	trans-1,2-Dichloroethene	50 U	50	
10061-02-6	trans-1,3-Dichloropropene	50 U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	4/22/14 07:51	
Dibromofluoromethane	100	70-130	4/22/14 07:51	
Toluene-d8	99	70-130	4/22/14 07:51	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1000
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 21:41

Sample Name: CL9-BR ZONE 2
 Lab Code: R1402638-022
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7797.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	230	D	200	
79-01-6	Trichloroethene (TCE)	400	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	6700	D	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	4/22/14 21:41	
Dibromofluoromethane	100	70-130	4/22/14 21:41	
Toluene-d8	98	70-130	4/22/14 21:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1030
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 22:12

Sample Name: CL9-BR ZONE 3
 Lab Code: R1402638-023

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7798.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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)	66		20	
79-01-6	Trichloroethene (TCE)	71		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	52		20	
156-59-2	cis-1,2-Dichloroethene	1000		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	92	70-130	4/22/14 22:12	
Dibromofluoromethane	102	70-130	4/22/14 22:12	
Toluene-d8	93	70-130	4/22/14 22:12	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1200
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 08:52

Sample Name: BR6 ZONE 1
 Lab Code: R1402638-024

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7772.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	4.0		2.0	
156-59-2	cis-1,2-Dichloroethene	12		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	93	70-130	4/22/14 08:52	
Dibromofluoromethane	101	70-130	4/22/14 08:52	
Toluene-d8	98	70-130	4/22/14 08:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 09:22

Sample Name: BR6 ZONE 2
 Lab Code: R1402638-025

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7773.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	3.1		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	23		2.0	
156-59-2	cis-1,2-Dichloroethene	390	E	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	93	70-130	4/22/14 09:22	
Dibromofluoromethane	100	70-130	4/22/14 09:22	
Toluene-d8	97	70-130	4/22/14 09:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1230
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 22:42

Sample Name: BR6 ZONE 2
 Lab Code: R1402638-025
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7799.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10 U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10 U	10	
107-06-2	1,2-Dichloroethane	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
67-64-1	Acetone	50 U	50	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-09-2	Methylene Chloride	10 U	10	
127-18-4	Tetrachloroethene (PCE)	10 U	10	
79-01-6	Trichloroethene (TCE)	10 U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10 U	10	
75-01-4	Vinyl Chloride	22 D	10	
156-59-2	cis-1,2-Dichloroethene	350 D	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	4/22/14 22:42	
Dibromofluoromethane	102	70-130	4/22/14 22:42	
Toluene-d8	99	70-130	4/22/14 22:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1300
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 09:53

Sample Name: BR6 ZONE 3
 Lab Code: R1402638-026

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7774.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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)	2.1		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	78		2.0	
156-59-2	cis-1,2-Dichloroethene	170		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	94	70-130	4/22/14 09:53	
Dibromofluoromethane	101	70-130	4/22/14 09:53	
Toluene-d8	96	70-130	4/22/14 09:53	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1330
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 15:26

Sample Name: CL8-BR ZONE 1
 Lab Code: R1402638-027

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J5000.D\

Analysis Lot: 389276
 Instrument Name: R-MS-12
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	95		50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	10	U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	4/22/14 15:26	
Dibromofluoromethane	103	70-130	4/22/14 15:26	
Toluene-d8	97	70-130	4/22/14 15:26	

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1400
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 10:54

Sample Name: CL8-BR ZONE 2
 Lab Code: R1402638-028

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7776.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 10:54	
Dibromofluoromethane	101	70-130	4/22/14 10:54	
Toluene-d8	97	70-130	4/22/14 10:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: 4/11/14 1430
 Date Received: 4/14/14
 Date Analyzed: 4/22/14 11:24

Sample Name: CL8-BR ZONE 3
 Lab Code: R1402638-029

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7777.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	94	70-130	4/22/14 11:24	
Dibromofluoromethane	99	70-130	4/22/14 11:24	
Toluene-d8	97	70-130	4/22/14 11:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150148-05000000
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1402638-MB

Service Request: R1402638
Date Collected: NA
Date Received: NA
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)	1.0	U	mg/L	1.0	1	NA	4/22/14 13:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150148-05000000
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402638-MB

Service Request: R1402638
 Date Collected: NA
 Date Received: NA

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	4/16/14 23:10	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	4/15/14	4/17/14 14:25	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/21/14 14:37

Sample Name: Method Blank
 Lab Code: RQ1404008-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7736.D\

Analysis Lot: 389045
 Instrument Name: R-MS-10
 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	94	70-130	4/21/14 14:37	
Dibromofluoromethane	99	70-130	4/21/14 14:37	
Toluene-d8	100	70-130	4/21/14 14:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 02:47

Sample Name: Method Blank
 Lab Code: RQ1404087-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042114\F7760.D\

Analysis Lot: 389046
 Instrument Name: R-MS-10
 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	94	70-130	4/22/14 02:47	
Dibromofluoromethane	99	70-130	4/22/14 02:47	
Toluene-d8	98	70-130	4/22/14 02:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403997-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\msvoa12\Data\042214\J4998.D\

Analysis Lot: 389276
 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	4/22/14 14:22	
Dibromofluoromethane	100	70-130	4/22/14 14:22	
Toluene-d8	98	70-130	4/22/14 14:22	

Analytical Report

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

Service Request: R1402638
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 16:04

Sample Name: Method Blank
 Lab Code: RQ1404075-02

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042214\F7786.D\

Analysis Lot: 389330
 Instrument Name: R-MS-10
 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	93	70-130	4/22/14 16:04	
Dibromofluoromethane	98	70-130	4/22/14 16:04	
Toluene-d8	97	70-130	4/22/14 16:04	

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/L
 Basis: NA

Analyte Name	Method	Lab Control Sample R1402638-LCS			% Rec	% Rec Limits
		Result	Spike Amount	% Rec		
Chloride	SM 4500-Cl-E-1997(20)	23.8	25.0	95	86 - 110	

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: R1402638
Date Analyzed: 4/16/14 -
4/17/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402638-LCS			% Rec Limits
		Result	Spike Amount	% Rec	
Iron, Dissolved	6010C	1040	1000	104	80 - 120
Manganese, Dissolved	6010C	489	500	98	80 - 120

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.



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

Service Request: R1402638
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389045

Analyte Name	Lab Control Sample RQ1404008-02			Duplicate Lab Control Sample RQ1404008-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	19.7	20.0	99	17.2	20.0	86	70 - 130	14	20
1,1,2,2-Tetrachloroethane	20.1	20.0	100	19.0	20.0	95	70 - 130	6	20
1,1,2-Trichloroethane	21.2	20.0	106	19.0	20.0	95	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	21.3	20.0	106	18.9	20.0	95	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	23.4	20.0	117	20.3	20.0	102	70 - 130	14	20
1,2-Dichloroethane	18.8	20.0	94	16.9	20.0	84	70 - 130	11	20
1,2-Dichloropropane	22.2	20.0	111	19.3	20.0	97	70 - 130	14	20
Acetone	21.6	20.0	108	22.0	20.0	110	40 - 160	2	20
Bromodichloromethane	20.9	20.0	105	18.6	20.0	93	70 - 130	12	20
Bromoform	19.9	20.0	100	18.5	20.0	93	70 - 130	7	20
Bromomethane	32.7	20.0	163 *	28.4	20.0	142	40 - 160	14	20
Carbon Tetrachloride	19.8	20.0	99	17.7	20.0	89	70 - 130	11	20
Chlorobenzene	21.0	20.0	105	18.6	20.0	93	70 - 130	12	20
Chloroethane	20.3	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloroform	20.2	20.0	101	18.2	20.0	91	70 - 130	11	20
Chloromethane	22.9	20.0	114	20.2	20.0	101	40 - 160	12	20
Dibromochloromethane	21.2	20.0	106	18.7	20.0	94	70 - 130	12	20
Methylene Chloride	21.4	20.0	107	19.5	20.0	97	70 - 130	9	20
Tetrachloroethene (PCE)	20.7	20.0	103	18.7	20.0	93	70 - 130	10	20
Trichloroethene (TCE)	20.7	20.0	104	18.2	20.0	91	70 - 130	13	20
Trichlorofluoromethane (CFC 11)	19.2	20.0	96	16.8	20.0	84	70 - 130	13	20
Vinyl Chloride	21.7	20.0	108	19.6	20.0	98	70 - 130	10	20
cis-1,2-Dichloroethene	20.5	20.0	102	18.3	20.0	91	70 - 130	12	20
cis-1,3-Dichloropropene	21.1	20.0	105	18.9	20.0	94	70 - 130	11	20
trans-1,2-Dichloroethene	20.9	20.0	105	18.4	20.0	92	70 - 130	13	20
trans-1,3-Dichloropropene	20.7	20.0	103	18.1	20.0	91	70 - 130	13	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.

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389276

Analyte Name	Lab Control Sample RQ1403997-03			Duplicate Lab Control Sample RQ1403997-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	21.3	20.0	107	20.3	20.0	102	70 - 130	5	20
1,1,2,2-Tetrachloroethane	20.3	20.0	102	19.4	20.0	97	70 - 130	4	20
1,1,2-Trichloroethane	20.7	20.0	103	20.3	20.0	101	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	19.9	20.0	100	19.3	20.0	97	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	23.2	20.0	116	22.5	20.0	112	70 - 130	3	20
1,2-Dichloroethane	21.8	20.0	109	21.0	20.0	105	70 - 130	3	20
1,2-Dichloropropane	20.2	20.0	101	19.3	20.0	96	70 - 130	4	20
Acetone	21.1	20.0	106	21.8	20.0	109	40 - 160	3	20
Bromodichloromethane	22.2	20.0	111	21.7	20.0	108	70 - 130	2	20
Bromoform	22.1	20.0	111	20.9	20.0	104	70 - 130	6	20
Bromomethane	23.9	20.0	119	22.0	20.0	110	40 - 160	8	20
Carbon Tetrachloride	22.0	20.0	110	20.5	20.0	102	70 - 130	7	20
Chlorobenzene	21.2	20.0	106	20.5	20.0	103	70 - 130	3	20
Chloroethane	22.3	20.0	112	21.6	20.0	108	70 - 130	3	20
Chloroform	20.3	20.0	102	19.6	20.0	98	70 - 130	3	20
Chloromethane	22.5	20.0	113	21.4	20.0	107	40 - 160	5	20
Dibromochloromethane	22.3	20.0	112	22.2	20.0	111	70 - 130	<1	20
Methylene Chloride	19.6	20.0	98	19.3	20.0	96	70 - 130	2	20
Tetrachloroethene (PCE)	22.4	20.0	112	20.8	20.0	104	70 - 130	8	20
Trichloroethene (TCE)	21.9	20.0	109	21.0	20.0	105	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	20.4	20.0	102	70 - 130	6	20
Vinyl Chloride	23.3	20.0	116	22.3	20.0	112	70 - 130	4	20
cis-1,2-Dichloroethene	19.9	20.0	99	19.2	20.0	96	70 - 130	3	20
cis-1,3-Dichloropropene	21.0	20.0	105	20.0	20.0	100	70 - 130	5	20
trans-1,2-Dichloroethene	21.4	20.0	107	20.1	20.0	100	70 - 130	6	20
trans-1,3-Dichloropropene	22.2	20.0	111	21.6	20.0	108	70 - 130	2	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.

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

Service Request: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389330

Analyte Name	Lab Control Sample RQ1404075-03			Duplicate Lab Control Sample RQ1404075-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	19.0	20.0	95	70 - 130	6	20
1,1,2,2-Tetrachloroethane	21.6	20.0	108	19.7	20.0	99	70 - 130	9	20
1,1,2-Trichloroethane	22.1	20.0	110	20.2	20.0	101	70 - 130	9	20
1,1-Dichloroethane (1,1-DCA)	21.2	20.0	106	20.7	20.0	104	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	23.3	20.0	116	22.7	20.0	113	70 - 130	3	20
1,2-Dichloroethane	19.2	20.0	96	18.2	20.0	91	70 - 130	5	20
1,2-Dichloropropane	23.0	20.0	115	21.3	20.0	107	70 - 130	8	20
Acetone	23.4	20.0	117	18.4	20.0	92	40 - 160	24 *	20
Bromodichloromethane	21.4	20.0	107	20.0	20.0	100	70 - 130	7	20
Bromoform	21.5	20.0	108	21.0	20.0	105	70 - 130	2	20
Bromomethane	19.9	20.0	99	19.8	20.0	99	40 - 160	<1	20
Carbon Tetrachloride	19.9	20.0	100	18.5	20.0	93	70 - 130	7	20
Chlorobenzene	21.5	20.0	107	19.9	20.0	99	70 - 130	8	20
Chloroethane	20.7	20.0	104	19.3	20.0	96	70 - 130	7	20
Chloroform	20.4	20.0	102	19.8	20.0	99	70 - 130	3	20
Chloromethane	23.5	20.0	118	21.8	20.0	109	40 - 160	8	20
Dibromochloromethane	22.8	20.0	114	20.8	20.0	104	70 - 130	9	20
Methylene Chloride	21.8	20.0	109	20.7	20.0	103	70 - 130	5	20
Tetrachloroethene (PCE)	21.9	20.0	110	19.8	20.0	99	70 - 130	10	20
Trichloroethene (TCE)	20.4	20.0	102	20.1	20.0	100	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	19.1	20.0	95	18.4	20.0	92	70 - 130	3	20
Vinyl Chloride	22.0	20.0	110	21.0	20.0	105	70 - 130	5	20
cis-1,2-Dichloroethene	21.3	20.0	106	19.7	20.0	98	70 - 130	8	20
cis-1,3-Dichloropropene	21.6	20.0	108	20.3	20.0	102	70 - 130	6	20
trans-1,2-Dichloroethene	21.4	20.0	107	20.5	20.0	103	70 - 130	4	20
trans-1,3-Dichloropropene	21.7	20.0	108	20.1	20.0	101	70 - 130	7	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: R1402638
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389046

Analyte Name	Lab Control Sample RQ1404087-02			Duplicate Lab Control Sample RQ1404087-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.1	20.0	90	16.0	20.0	80	70 - 130	12	20
1,1,2,2-Tetrachloroethane	18.9	20.0	94	17.2	20.0	86	70 - 130	9	20
1,1,2-Trichloroethane	22.5	20.0	113	20.3	20.0	102	70 - 130	10	20
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	102	18.1	20.0	90	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	20.6	20.0	103	18.6	20.0	93	70 - 130	10	20
1,2-Dichloroethane	19.9	20.0	100	17.7	20.0	88	70 - 130	12	20
1,2-Dichloropropane	22.6	20.0	113	19.6	20.0	98	70 - 130	14	20
Acetone	24.6	20.0	123	19.8	20.0	99	40 - 160	22 *	20
Bromodichloromethane	21.4	20.0	107	18.5	20.0	92	70 - 130	14	20
Bromoform	22.3	20.0	111	20.0	20.0	100	70 - 130	11	20
Bromomethane	30.1	20.0	150	26.4	20.0	132	40 - 160	13	20
Carbon Tetrachloride	17.6	20.0	88	15.3	20.0	76	70 - 130	14	20
Chlorobenzene	20.4	20.0	102	18.0	20.0	90	70 - 130	13	20
Chloroethane	19.0	20.0	95	16.1	20.0	81	70 - 130	17	20
Chloroform	19.7	20.0	99	17.8	20.0	89	70 - 130	10	20
Chloromethane	21.5	20.0	108	19.4	20.0	97	40 - 160	10	20
Dibromochloromethane	22.4	20.0	112	19.8	20.0	99	70 - 130	13	20
Methylene Chloride	22.1	20.0	110	19.7	20.0	98	70 - 130	12	20
Tetrachloroethene (PCE)	18.5	20.0	92	16.9	20.0	84	70 - 130	9	20
Trichloroethene (TCE)	22.5	20.0	113	19.3	20.0	96	70 - 130	15	20
Trichlorofluoromethane (CFC 11)	16.7	20.0	84	15.1	20.0	76	70 - 130	10	20
Vinyl Chloride	20.0	20.0	100	17.8	20.0	89	70 - 130	11	20
cis-1,2-Dichloroethene	20.1	20.0	100	17.8	20.0	89	70 - 130	12	20
cis-1,3-Dichloropropene	20.9	20.0	104	18.1	20.0	90	70 - 130	14	20
trans-1,2-Dichloroethene	20.1	20.0	101	17.6	20.0	88	70 - 130	13	20
trans-1,3-Dichloropropene	21.5	20.0	108	18.6	20.0	93	70 - 130	15	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.





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 Manager Raymond Cadorette Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021 Phone # 617-589-6102 Sampler's Signature <i>[Signature]</i> E-mail Raymond.Cadorette@cbi.com Sampler's Printed Name Raymond C. Cadorette		Project Number 150148-05000000 Report CC ANALYSIS REQUESTED (Include Method Number and Container Preservative) PRESERVATIVE: <u>1</u> NUMBER OF CONTAINERS: <u>3</u> GCMS VOAS <input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> CLP GCMS SVOAS <input type="checkbox"/> 8270 <input type="checkbox"/> 825 GC VOAS <input type="checkbox"/> 8081 <input type="checkbox"/> 608 PESTICIDES <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) Chloride <u>20</u> Fe + Mn	
CLIENT SAMPLE ID STRHA-7A STRHA-7B OB24-5 MW-33B TB-3 AP-19 (25') AP-20 (16') AP-21 (23') AP-22 (20') B-2 (11')		FOR OFFICE USE ONLY LAB ID SAMPLING DATE 4/10/14 1300 4/10/14 1330 4/10/14 1400 4/11/14 0630 4/11/14 0650 4/11/14 0715 4/11/14 0800 4/11/14 0900 4/11/14 0930 4/11/14 1000 TIME MATRIX GW	
SPECIAL INSTRUCTIONS/COMMENTS Metals = Field filtered Site specific VOC list. Massachusetts CAM analyses reporting and QA/QC. Please email GISKEY formatted EDD & PDF of report to: Catherine.Joe@cbi.com.		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) <input type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/> 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard REPORT REQUIREMENTS <input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw	
INVOICE INFORMATION PO #: 873489 BILL TO: CB&I		RECEIVED BY Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>[Date/Time]</i>	
RECEIVED BY Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>[Date/Time]</i>		RECEIVED BY Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>[Date/Time]</i>	

R1402638
 CB&I Environmental & Infrastructure
 Varian Beverly
 7Y



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 3 OF 4

Project Name Varian Beverly Project Manager Raymond Cadorette Company/Address CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021 Phone # 617-589-6102 E-mail Raymond.Cadorette@cbi.com Sample Signature <i>Raymond Cadorette</i>		Project Number 150148-05000000 Report CC 		ANALYSIS REQUESTED (Include Method Number and Container Preservative) 	
CLIENT SAMPLE ID BR5 Zone 1 BR5 Zone 2 BR5 Zone 3 CH9-BR Zone 1 CH9-AR Zone 2 CH9-BR Zone 3 BR6 Zone 1 BR6 Zone 2 BR6 Zone 3 CH8-BR Zone 1		FOR OFFICE USE ONLY LAB ID 		PRESERVATIVE 1 20 	
SAMPLING DATE 4/11/14 		SAMPLING TIME 0830 0900 0800 0930 0000 1030 1800 1230 1300 1330		MATRIX GW 	
NUMBER OF CONTAINERS 3 3 5 3 3 3 3 3 3 3		GCMS VOAS <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> CLP <input type="checkbox"/> 8270 <input type="checkbox"/> 825 <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 GCMS SVOAS <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 PESTICIDES <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 METALS, TOTAL <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 METALS, DISSOLVED <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 METALS, DISOLVED <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> 8082 <input type="checkbox"/> 608 Chloride Fe+		REMARKS/ALTERNATE DESCRIPTION 	
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.		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) <input type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/> 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard REQUESTED REPORT DATE 		REPORT REQUIREMENTS <input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MSMSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data PO #: 873489 BILL TO: CB&I	
See OAPP <input type="checkbox"/> STATE WHERE SAMPLES WERE COLLECTED:		RECEIVED BY Signature: <i>Raymond Cadorette</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1500		RECEIVED BY Signature: <i>Raymond Cadorette</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1500	
RECEIVED BY Signature: <i>Raymond Cadorette</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1500		RECEIVED BY Signature: <i>Raymond Cadorette</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1500		RECEIVED BY Signature: <i>Raymond Cadorette</i> Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1500	



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) | 585.288.8475 (fax) | PAGE 4 OF 4

Project Name Varian Beverly Project Manager Raymond Cadorette 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 Paul Ledwith	Project Number 150148-05000000 Report CC	ANALYSIS REQUESTED (Include Method Number and Container Preservative) METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608 PESTICIDES <input type="checkbox"/> 8081 <input type="checkbox"/> 608 GC VOAS <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 GC/SVOAS <input type="checkbox"/> 8270 <input type="checkbox"/> 625 GCMS VOAS <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> CLP	PRESERVATIVE 1 NUMBER OF CONTAINERS 3 3	REMARKS/ALTERNATE DESCRIPTION Chloride Fe + Mn	Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn, Acetate 6. MeOH 7. NaHSO4 8. Other _____
CLIENT SAMPLE ID CL8-BR Zone 2 CL8-BR Zone 3		FOR OFFICE USE ONLY LAB ID DATE 4-11-14 1430 1430		MATRIX GW GW	
SPECIAL INSTRUCTIONS/COMMENTS Metals = Field filtered Site specific VOC list. Massachusetts CAM analyses reporting and QA/QC. Please email GISKey formatted EDD & PDF of report to: Catherine.Joe@cbi.com.					
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day 4 day <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO #: 873489 BILL TO: CB&I	
RECEIVED BY Signature:  Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4-11-14 1500		RECEIVED BY Signature:  Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4/11/14 1430		RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	
RECEIVED BY Signature:  Printed Name: Raymond Cadorette Firm: CB&I Date/Time: 4-11-14 1500		RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	



Cooler Receipt and Preservation Check Form

Project/Client COTE Folder Number 214-2638

Cooler received on 4/14/14 by: Q 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 signed
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? melted 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: 13.1°

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

If No, Explain Below Date/Time Temperatures Taken: 4/14/14 0828

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 R-002 by Q on 4/14/14 at 0833
 5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: SMU 4/14/14

Cooler Breakdown: Date: 4/14/14 Time: 1456 by: JFS

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? ~~YES~~ NO
2. ~~Did~~ 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	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO							
≥12	NaOH									
≤2	HNO ₃	<input checked="" type="checkbox"/>		<u>check</u>						
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	<u>check</u>						

Bottle lot numbers: _____

Other Comments:

* TB-3 was labeled as ED-3. This was determined because date & time matched up for missing sample.

PC Secondary Review: SMU 4/24/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Cooler Receipt and Preservation Check Form

Project/Client OB&T Folder Number 114-2595

Cooler received on 4/11 by: JCS 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/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
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 JCS on 4/11/14 at 0906
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JMS 4/11/14

Cooler Breakdown: Date: 4/14/14 Time: 0804 by: JCS

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			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO							
≥12	NaOH									No = Samples were preserved at lab as listed
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						PM OK to Adjust: _____
	Na ₂ S ₂ O ₃	-	-						*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet	
	Zn Aceta	-	-							
	HCl	*	*	<u>4112120</u>	<u>3/15</u>					

Bottle lot numbers: 4-002-003

Other Comments:

labels on samples 17, 18, 20 do not match the ID's on coc.
this temp sheet applicable to OB43-5 (15')

PC Secondary Review: JMS 4/24/14

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

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc **Job Number :** 150151.18
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. :** R1402683
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
4/10/14	VOC TO-15		30 Days	4/18/14

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 4/18/2014

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:

(1) 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.

(2) various compounds for BLDG2-6 and BLDG2-7 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 23, 2014

Service Request No: R1402683

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

Laboratory Results for: Varian Beverly/150151-07

Dear Mr. Cadorette:

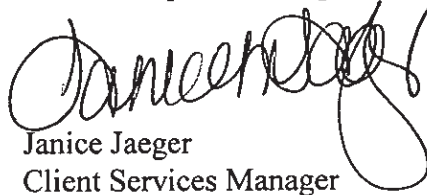
Enclosed are the results of the sample(s) submitted to our laboratory on April 15, 2014. For your reference, these analyses have been assigned our service request number **R1402683**.

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

Page 1 of 20

ALS Environmental

Client: CB&I.
Project: Varian Beverly
Sample Matrix: Air

Service Request No.: R1402683
Project No.: 150151-07
Date Received: 04/15/14

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 04/10/14 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

Six 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 BLDG2-6 and BLDG2-7 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 %.

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):
R1402683-001-006

 Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air 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 <input checked="" type="checkbox"/>
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 <input checked="" type="checkbox"/> 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

¹All 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: R1402683

<u>Lab ID</u>	<u>Client ID</u>
R1402683-001	BLDG2- SV1
R1402683-002	BLDG2- SV2
R1402683-003	BLDG3- VP7
R1402683-004	BLDG6- SV1
R1402683-005	BLDG2-6
R1402683-006	BLDG2-7

00004

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

A handwritten signature in cursive script, reading "David C. Giacalone".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

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
<u>Analytes</u>			<u>Methods</u>	
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	

June 25, 2013

*= Provisional Certification

Page 1 of 2

00007

**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**

<u>Analytes</u>	<u>Methods</u>
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/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2- SV1
 Lab Code: R1402683-001

Service Request: R1402683
 Date Collected: 4/10/14 1527
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1248
 Canister Dilution Factor: 1.52

Initial Pressure (psig): -2.70 Final Pressure (psig): 3.60

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	0.080	8600	8600	4100	4100	U
75-01-4	Vinyl Chloride	0.080	1100	1100	450	450	U
74-83-9	Bromomethane	0.080	8200	8200	2100	2100	U
75-00-3	Chloroethane	0.080	11000	11000	4200	4200	U
67-64-1	Acetone	0.080	95000	95000	40000	40000	U
75-69-4	Trichlorofluoromethane (CFC 11)	0.080	12000	12000	2100	2100	U
75-35-4	1,1-Dichloroethene	0.080	8400	8400	2100	2100	U
75-09-2	Methylene Chloride	0.080	7200	7200	2100	2100	U
156-60-5	trans-1,2-Dichloroethene	0.080	8400	8400	2100	2100	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	0.080	8600	8600	2100	2100	U
156-59-2	cis-1,2-Dichloroethene	0.080	8400	8400	2100	2100	U
67-66-3	Chloroform	0.080	10000	10000	2100	2100	U
107-06-2	1,2-Dichloroethane	0.080	8600	8600	2100	2100	U
71-55-6	1,1,1-Trichloroethane (TCA)	0.080	11000	11000	2100	2100	U
56-23-5	Carbon Tetrachloride	0.080	1300	1300	210	210	U
78-87-5	1,2-Dichloropropane	0.080	9700	9700	2100	2100	U
75-27-4	Bromodichloromethane	0.080	2900	2900	430	430	U
79-01-6	Trichloroethene (TCE)	0.080	48000	1100	9000	210	U
10061-01-5	cis-1,3-Dichloropropene	0.080	19000	19000	4200	4200	U
10061-02-6	trans-1,3-Dichloropropene	0.080	9500	9500	2100	2100	U
79-00-5	1,1,2-Trichloroethane	0.080	11000	11000	2100	2100	U
124-48-1	Dibromochloromethane	0.080	3600	3600	420	420	U
127-18-4	Tetrachloroethene (PCE)	0.080	1200000	1500	180000	220	U
108-90-7	Chlorobenzene	0.080	9700	9700	2100	2100	U
75-25-2	Bromoform	0.080	22000	22000	2100	2100	U
79-34-5	1,1,2,2-Tetrachloroethane	0.080	2900	2900	420	420	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	92	70-130	4/18/14 1248	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2- SV2
 Lab Code: R1402683-002

Service Request: R1402683
 Date Collected: 4/10/14 1537
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1804
 Canister Dilution Factor: 1.64

Initial Pressure (psig): -3.49 Final Pressure (psig): 3.71

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	50	15	15	7.2	7.2	U
75-01-4	Vinyl Chloride	50	2.0	2.0	0.77	0.77	U
74-83-9	Bromomethane	50	14	14	3.6	3.6	U
75-00-3	Chloroethane	50	19	19	7.2	7.2	U
67-64-1	Acetone	50	160	160	69	69	U
75-69-4	Trichlorofluoromethane (CFC 11)	50	20	20	3.6	3.6	U
75-35-4	1,1-Dichloroethene	50	14	14	3.6	3.6	U
75-09-2	Methylene Chloride	50	12	12	3.6	3.6	U
156-60-5	trans-1,2-Dichloroethene	50	14	14	3.6	3.6	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	15	15	3.6	3.6	U
156-59-2	cis-1,2-Dichloroethene	50	14	14	3.6	3.6	U
67-66-3	Chloroform	50	18	18	3.6	3.6	U
107-06-2	1,2-Dichloroethane	50	15	15	3.6	3.6	U
71-55-6	1,1,1-Trichloroethane (TCA)	50	20	20	3.6	3.6	U
56-23-5	Carbon Tetrachloride	50	2.3	2.3	0.37	0.37	U
78-87-5	1,2-Dichloropropane	50	17	17	3.6	3.6	U
75-27-4	Bromodichloromethane	50	4.9	4.9	0.73	0.73	U
79-01-6	Trichloroethene (TCE)	50	31	2.0	5.7	0.37	U
10061-01-5	cis-1,3-Dichloropropene	50	33	33	7.2	7.2	U
10061-02-6	trans-1,3-Dichloropropene	50	16	16	3.6	3.6	U
79-00-5	1,1,2-Trichloroethane	50	20	20	3.6	3.6	U
124-48-1	Dibromochloromethane	50	6.2	6.2	0.73	0.73	U
127-18-4	Tetrachloroethene (PCE)	50	11	2.6	1.6	0.39	U
108-90-7	Chlorobenzene	50	17	17	3.6	3.6	U
75-25-2	Bromoform	50	37	37	3.6	3.6	U
79-34-5	1,1,2,2-Tetrachloroethane	50	4.9	4.9	0.72	0.72	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	96	70-130	4/18/14 1804	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG3- VP7
 Lab Code: R1402683-003

Service Request: R1402683
 Date Collected: 4/10/14 1534
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 2150
 Canister Dilution Factor: 1.61

Initial Pressure (psig): -3.34 Final Pressure (psig): 3.59

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	115	6.3	6.3	3.1	3.1	U
75-01-4	Vinyl Chloride	115	0.84	0.84	0.33	0.33	U
74-83-9	Bromomethane	115	6.0	6.0	1.6	1.6	U
75-00-3	Chloroethane	115	8.1	8.1	3.1	3.1	U
67-64-1	Acetone	115	130	70	57	29	
75-69-4	Trichlorofluoromethane (CFC 11)	115	8.7	8.7	1.5	1.5	U
75-35-4	1,1-Dichloroethene	115	6.2	6.2	1.6	1.6	U
75-09-2	Methylene Chloride	115	5.3	5.3	1.5	1.5	U
156-60-5	trans-1,2-Dichloroethene	115	6.2	6.2	1.6	1.6	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	115	6.3	6.3	1.6	1.6	U
156-59-2	cis-1,2-Dichloroethene	115	13	6.2	3.2	1.6	
67-66-3	Chloroform	115	39	7.6	8.1	1.5	
107-06-2	1,2-Dichloroethane	115	6.3	6.3	1.6	1.6	U
71-55-6	1,1,1-Trichloroethane (TCA)	115	8.4	8.4	1.5	1.5	U
56-23-5	Carbon Tetrachloride	115	0.98	0.98	0.16	0.16	U
78-87-5	1,2-Dichloropropane	115	7.1	7.1	1.5	1.5	U
75-27-4	Bromodichloromethane	115	1.6	0.24	0.31	0.31	
79-01-6	Trichloroethene (TCE)	115	95	0.84	18	0.16	
10061-01-5	cis-1,3-Dichloropropene	115	14	14	3.1	3.1	U
10061-02-6	trans-1,3-Dichloropropene	115	7.0	7.0	1.5	1.5	U
79-00-5	1,1,2-Trichloroethane	115	8.4	8.4	1.5	1.5	U
124-48-1	Dibromochloromethane	115	2.7	2.7	0.31	0.31	U
127-18-4	Tetrachloroethene (PCE)	115	520	1.1	77	0.17	
108-90-7	Chlorobenzene	115	7.1	7.1	1.6	1.6	U
75-25-2	Bromoform	115	16	16	1.5	1.5	U
79-34-5	1,1,2,2-Tetrachloroethane	115	2.1	2.1	0.31	0.31	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	94	70-130	4/18/14 2150	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG6- SV1
 Lab Code: R1402683-004

Service Request: R1402683
 Date Collected: 4/10/14 1530
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1335
 Canister Dilution Factor: 1.49

Initial Pressure (psig): -2.46 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1.4	480	480	230	230	U
75-01-4	Vinyl Chloride	1.4	64	64	25	25	U
74-83-9	Bromomethane	1.4	460	460	120	120	U
75-00-3	Chloroethane	1.4	620	620	230	230	U
67-64-1	Acetone	1.4	5300	5300	2200	2200	U
75-69-4	Trichlorofluoromethane (CFC 11)	1.4	660	660	120	120	U
75-35-4	1,1-Dichloroethene	1.4	470	470	120	120	U
75-09-2	Methylene Chloride	1.4	400	400	120	120	U
156-60-5	trans-1,2-Dichloroethene	1.4	470	470	120	120	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.4	480	480	120	120	U
156-59-2	cis-1,2-Dichloroethene	1.4	470	470	120	120	U
67-66-3	Chloroform	1.4	570	570	120	120	U
107-06-2	1,2-Dichloroethane	1.4	480	480	120	120	U
71-55-6	1,1,1-Trichloroethane (TCA)	1.4	640	640	120	120	U
56-23-5	Carbon Tetrachloride	1.4	75	75	12	12	U
78-87-5	1,2-Dichloropropane	1.4	540	540	120	120	U
75-27-4	Bromodichloromethane	1.4	160	160	24	24	U
79-01-6	Trichloroethene (TCE)	1.4	22000	64	4100	12	
10061-01-5	cis-1,3-Dichloropropene	1.4	1100	1100	230	230	U
10061-02-6	trans-1,3-Dichloropropene	1.4	530	530	120	120	U
79-00-5	1,1,2-Trichloroethane	1.4	640	640	120	120	U
124-48-1	Dibromochloromethane	1.4	200	200	24	24	U
127-18-4	Tetrachloroethene (PCE)	1.4	48000	85	7100	13	
108-90-7	Chlorobenzene	1.4	540	540	120	120	U
75-25-2	Bromoform	1.4	1200	1200	120	120	U
79-34-5	1,1,2,2-Tetrachloroethane	1.4	160	160	23	23	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	92	70-130	4/18/14 1335	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2-6
 Lab Code: R1402683-005

Service Request: R1402683
 Date Collected: 4/10/14 1726
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1557
 Canister Dilution Factor: 1.43

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.55

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	800	0.90	0.80	0.43	0.39	
75-01-4	Vinyl Chloride	800	0.11	0.11	0.042	0.042	U
74-83-9	Bromomethane	800	0.77	0.77	0.20	0.20	U
75-00-3	Chloroethane	800	1.0	1.0	0.39	0.39	U
67-64-1	Acetone	800	88	8.9	37	3.8	E
75-69-4	Trichlorofluoromethane (CFC 11)	800	1.3	1.1	0.23	0.20	
75-35-4	1,1-Dichloroethene	800	0.79	0.79	0.20	0.20	U
75-09-2	Methylene Chloride	800	0.68	0.68	0.20	0.20	U
156-60-5	trans-1,2-Dichloroethene	800	0.79	0.79	0.20	0.20	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.80	0.80	0.20	0.20	U
156-59-2	cis-1,2-Dichloroethene	800	0.79	0.79	0.20	0.20	U
67-66-3	Chloroform	800	0.97	0.97	0.20	0.20	U
107-06-2	1,2-Dichloroethane	800	0.80	0.80	0.20	0.20	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.1	1.1	0.20	0.20	U
56-23-5	Carbon Tetrachloride	800	0.48	0.13	0.077	0.020	
78-87-5	1,2-Dichloropropane	800	0.91	0.91	0.20	0.20	U
75-27-4	Bromodichloromethane	800	0.27	0.27	0.040	0.040	U
79-01-6	Trichloroethene (TCE)	800	0.96	0.11	0.18	0.020	
10061-01-5	cis-1,3-Dichloropropene	800	1.8	1.8	0.39	0.39	U
10061-02-6	trans-1,3-Dichloropropene	800	0.89	0.89	0.20	0.20	U
79-00-5	1,1,2-Trichloroethane	800	1.1	1.1	0.20	0.20	U
124-48-1	Dibromochloromethane	800	0.34	0.34	0.040	0.040	U
127-18-4	Tetrachloroethene (PCE)	800	4.0	0.14	0.59	0.021	
108-90-7	Chlorobenzene	800	0.91	0.91	0.20	0.20	U
75-25-2	Bromoform	800	2.0	2.0	0.20	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	800	0.27	0.27	0.039	0.039	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	99	70-130	4/18/14 1557	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2-6
 Lab Code: R1402683-005
 Run Type: Dilution

Service Request: R1402683
 Date Collected: 4/10/14 1726
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1934
 Canister Dilution Factor: 1.43

Initial Pressure (psig): -1.92 Final Pressure (psig): 3.55

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	250	2.6	2.6	1.2	1.2	U
75-01-4	Vinyl Chloride	250	0.34	0.34	0.13	0.13	U
74-83-9	Bromomethane	250	2.5	2.5	0.63	0.63	U
75-00-3	Chloroethane	250	3.3	3.3	1.3	1.3	U
67-64-1	Acetone	250	95	29	40	12	D
75-69-4	Trichlorofluoromethane (CFC 11)	250	3.5	3.5	0.63	0.63	U
75-35-4	1,1-Dichloroethene	250	2.5	2.5	0.64	0.64	U
75-09-2	Methylene Chloride	250	2.2	2.2	0.63	0.63	U
156-60-5	trans-1,2-Dichloroethene	250	2.5	2.5	0.64	0.64	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	250	2.6	2.6	0.64	0.64	U
156-59-2	cis-1,2-Dichloroethene	250	2.5	2.5	0.64	0.64	U
67-66-3	Chloroform	250	3.1	3.1	0.63	0.63	U
107-06-2	1,2-Dichloroethane	250	2.6	2.6	0.64	0.64	U
71-55-6	1,1,1-Trichloroethane (TCA)	250	3.4	3.4	0.63	0.63	U
56-23-5	Carbon Tetrachloride	250	0.46	0.40	0.073	0.064	D
78-87-5	1,2-Dichloropropane	250	2.9	2.9	0.63	0.63	U
75-27-4	Bromodichloromethane	250	0.86	0.86	0.13	0.13	U
79-01-6	Trichloroethene (TCE)	250	0.89	0.34	0.17	0.064	D
10061-01-5	cis-1,3-Dichloropropene	250	5.7	5.7	1.3	1.3	U
10061-02-6	trans-1,3-Dichloropropene	250	2.9	2.9	0.63	0.63	U
79-00-5	1,1,2-Trichloroethane	250	3.4	3.4	0.63	0.63	U
124-48-1	Dibromochloromethane	250	1.1	1.1	0.13	0.13	U
127-18-4	Tetrachloroethene (PCE)	250	3.7	0.46	0.55	0.068	D
108-90-7	Chlorobenzene	250	2.9	2.9	0.63	0.63	U
75-25-2	Bromoform	250	6.5	6.5	0.63	0.63	U
79-34-5	1,1,2,2-Tetrachloroethane	250	0.86	0.86	0.12	0.12	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	94	70-130	4/18/14 1934	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2-7
 Lab Code: R1402683-006

Service Request: R1402683
 Date Collected: 4/10/14 1725
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 1640
 Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.77 Final Pressure (psig): 3.69

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	154	4.1	4.1	2.0	2.0	U
75-01-4	Vinyl Chloride	154	0.55	0.55	0.22	0.22	U
74-83-9	Bromomethane	154	4.0	4.0	1.0	1.0	U
75-00-3	Chloroethane	154	5.3	5.3	2.0	2.0	U
67-64-1	Acetone	154	87	46	37	19	D
75-69-4	Trichlorofluoromethane (CFC 11)	154	5.7	5.7	1.0	1.0	U
75-35-4	1,1-Dichloroethene	154	4.1	4.1	1.0	1.0	U
75-09-2	Methylene Chloride	154	3.5	3.5	1.0	1.0	U
156-60-5	trans-1,2-Dichloroethene	154	4.1	4.1	1.0	1.0	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	154	4.1	4.1	1.0	1.0	U
156-59-2	cis-1,2-Dichloroethene	154	4.1	4.1	1.0	1.0	U
67-66-3	Chloroform	154	5.0	5.0	1.0	1.0	U
107-06-2	1,2-Dichloroethane	154	4.1	4.1	1.0	1.0	U
71-55-6	1,1,1-Trichloroethane (TCA)	154	5.5	5.5	1.0	1.0	U
56-23-5	Carbon Tetrachloride	154	0.65	0.65	0.10	0.10	U
78-87-5	1,2-Dichloropropane	154	4.7	4.7	1.0	1.0	U
75-27-4	Bromodichloromethane	154	1.4	1.4	0.21	0.21	U
79-01-6	Trichloroethene (TCE)	154	0.55	0.55	0.10	0.10	U
10061-01-5	cis-1,3-Dichloropropene	154	9.2	9.2	2.0	2.0	U
10061-02-6	trans-1,3-Dichloropropene	154	4.6	4.6	1.0	1.0	U
79-00-5	1,1,2-Trichloroethane	154	5.5	5.5	1.0	1.0	U
124-48-1	Dibromochloromethane	154	1.8	1.8	0.21	0.21	U
127-18-4	Tetrachloroethene (PCE)	154	0.74	0.74	0.11	0.11	U
108-90-7	Chlorobenzene	154	4.7	4.7	1.0	1.0	U
75-25-2	Bromoform	154	11	11	1.0	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	154	1.4	1.4	0.20	0.20	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	95	70-130	4/18/14 1640	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: BLDG2-7
 Lab Code: R1402683-006
 Run Type: Dilution

Service Request: R1402683
 Date Collected: 4/10/14 1725
 Date Received: 4/15/14

Analytical Method: TO-15

Date Analyzed: 4/18/14 2021
 Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.77 Final Pressure (psig): 3.69

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	500	1.3	1.3	0.62	0.62	U
75-01-4	Vinyl Chloride	500	0.17	0.17	0.067	0.067	U
74-83-9	Bromomethane	500	1.2	1.2	0.31	0.31	U
75-00-3	Chloroethane	500	1.6	1.6	0.62	0.62	U
67-64-1	Acetone	500	98	14	41	6.0	E
75-69-4	Trichlorofluoromethane (CFC 11)	500	1.8	1.8	0.31	0.31	U
75-35-4	1,1-Dichloroethene	500	1.2	1.2	0.32	0.32	U
75-09-2	Methylene Chloride	500	1.1	1.1	0.31	0.31	U
156-60-5	trans-1,2-Dichloroethene	500	1.2	1.2	0.32	0.32	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	1.3	1.3	0.32	0.32	U
156-59-2	cis-1,2-Dichloroethene	500	1.2	1.2	0.32	0.32	U
67-66-3	Chloroform	500	1.5	1.5	0.31	0.31	U
107-06-2	1,2-Dichloroethane	500	1.3	1.3	0.32	0.32	U
71-55-6	1,1,1-Trichloroethane (TCA)	500	1.7	1.7	0.31	0.31	U
56-23-5	Carbon Tetrachloride	500	0.46	0.20	0.073	0.032	
78-87-5	1,2-Dichloropropane	500	1.4	1.4	0.31	0.31	U
75-27-4	Bromodichloromethane	500	0.43	0.43	0.064	0.064	U
79-01-6	Trichloroethene (TCE)	500	0.37	0.17	0.068	0.032	
10061-01-5	cis-1,3-Dichloropropene	500	2.8	2.8	0.63	0.63	U
10061-02-6	trans-1,3-Dichloropropene	500	1.4	1.4	0.31	0.31	U
79-00-5	1,1,2-Trichloroethane	500	1.7	1.7	0.31	0.31	U
124-48-1	Dibromochloromethane	500	0.54	0.54	0.063	0.063	U
127-18-4	Tetrachloroethene (PCE)	500	0.36	0.23	0.054	0.034	
108-90-7	Chlorobenzene	500	1.4	1.4	0.31	0.31	U
75-25-2	Bromoform	500	3.2	3.2	0.31	0.31	U
79-34-5	1,1,2,2-Tetrachloroethane	500	0.43	0.43	0.062	0.062	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	94	70-130	4/18/14 2021	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1403891-01

Service Request: R1402683
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 4/18/14 0943

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
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
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	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 (1,1-DCA)	1000	0.45	0.45	0.11	0.11	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
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
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	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
124-48-1	Dibromochloromethane	1000	0.19	0.19	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
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	92	70-130	4/18/14 0943	

Client: CB&I
 Project: Varian Beverly/150151-07
 Sample Matrix: Air

Service Request: R1402683
 Date Analyzed: 4/18/14

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

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$
 Basis: NA

Analysis Lot: 389023

Lab Control Sample
 RQ1403891-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	5.18	5.26	98	70 - 130
Vinyl Chloride	5.92	6.58	90	70 - 130
Bromomethane	8.67	9.80	88	70 - 130
Chloroethane	5.99	6.66	90	70 - 130
Acetone	5.66	6.47	87	50 - 150
Trichlorofluoromethane (CFC 11)	13.2	15.2	87	70 - 130
1,1-Dichloroethene	9.18	10.3	89	70 - 130
Methylene Chloride	9.31	8.94	104	70 - 130
trans-1,2-Dichloroethene	9.94	10.4	96	70 - 130
1,1-Dichloroethane (1,1-DCA)	10.4	10.4	99	70 - 130
cis-1,2-Dichloroethene	10.3	10.4	99	70 - 130
Chloroform	12.1	13.2	92	70 - 130
1,2-Dichloroethane	9.22	10.6	87	70 - 130
1,1,1-Trichloroethane (TCA)	12.5	14.3	87	70 - 130
Carbon Tetrachloride	14.1	16.0	88	70 - 130
1,2-Dichloropropane	11.9	12.1	98	70 - 130
Bromodichloromethane	16.7	17.4	96	70 - 130
Trichloroethene (TCE)	13.5	14.0	97	70 - 130
cis-1,3-Dichloropropene	12.1	12.5	97	70 - 130
trans-1,3-Dichloropropene	10.3	10.9	95	70 - 130
1,1,2-Trichloroethane	14.0	14.5	97	70 - 130
Dibromochloromethane	21.8	23.4	93	70 - 130
Tetrachloroethene (PCE)	17.3	18.0	97	70 - 130
Chlorobenzene	12.6	12.3	103	70 - 130
Bromoform	26.8	26.6	101	70 - 130
1,1,2,2-Tetrachloroethane	17.9	18.5	97	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.



CHAIN OF CUSTODY - AIR

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Company Name: CBIZ		Project Name: Varian		CAS Project #: 150151-07			
Address: 150 Royall Dr.		Project Number: 150151		CAS Contact:			
City, State, Zip: Canton, MA, 02021		P.O. #/Billing Information: 896744 @ 896613		Analysis Method and/or Analytes			
Project Manager: Ray Cadorette		Sampler (Print & Sign): Pat Dailey		Comments Specific Instructions			
Phone: 617-589-6102		Email (for result reporting): raymond.cadorette@cbi.com		<p>Requested Turnaround Time in Business Days from Receipt, please circle:</p> <p>1 Day 2 Day 3 Day 4 Day 5 Day 10 Day-Standard</p> <p>Project Requirements (MRLs; QAPP, etc.)</p> <p>• QA/QC</p> <p>• MADEP CAM</p> <p>• Complete 2nd Run</p>			
Fax:		Date Collected				Date: 4/15/14	
Laboratory ID Number		Time Collected				Time: 15:27	
Client Sample ID		Canister ID				Time: 15:37	
Flow Controller ID		Flow Controller ID				Time: 15:34	
Flow Controller ID		Flow Controller ID				Time: 15:30	
Flow Controller ID		Flow Controller ID				Time: 17:26	
Flow Controller ID		Flow Controller ID				Time: 17:25	
Flow Controller ID		Flow Controller ID				Time:	
Flow Controller ID		Flow Controller ID				Time:	
What State were samples collected in: Massachusetts							
Report Tier Levels - please select:							
Tier I (Results/Default, if not specified) _____							
Tier II (Results + QC) X							
Tier III (CLP Forms Only) _____							
Tier IV (Data Validation) _____							
Relinquished by: (Signature)		Date: 4/10/14		Time:			
Relinquished by: (Signature)		Date:		Time:			
Relinquished by: (Signature)		Date:		Time:			

R1402683

7 Y

CB&I Environmental & Infrastructure
Verlan Beverly





Cooler Receipt and Preservation Check Form

Project/Client CBI Folder Number R14-2683 KE 4-15-14
 Cooler received on 4-15-14 by: ME COURIER: ALS UPS ~~FEDEX~~ VELOCITY CLIENT

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

Is the temperature within 0° - 6° C?: Y N/A Y N NA 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 SMD by ME on 4-15-14 at 10:05
 5035 samples placed in storage location by _____ on _____ at _____

PC Secondary Review: JMM 4/19/14

Cooler Breakdown: Date: 4/15/14 Time: 1343 by: ME

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

Explain any discrepancies:

pH	Reagent	Lot Received		Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO						
≥12	NaOH								*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet
≤2	HNO ₃								
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522				If present, contact PM to add ascorbic acid Or sodium sulfite (522)				
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

Bottle lot numbers: _____
 Other Comments: _____

PC Secondary Review: JMM 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 :** 150151.17
Prepared By: Dale Dailey **Date :** 6/10/2014
Matrix: Pipe Flush Water
Analyte Group : Volatile Organics **Analytical Method :** SW-846 8260C
Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** R1402713
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
4/7/14	EPA Method 624	14 days	30 Days	4/17/14

Sample temperature within QC limits: Yes, 6.0 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 :

Trip Blank ID : NA

Method Blank: Method 624 4/17/2014

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 Initial and continuing calibrations were compliant.

All LCS and LCSD recoveries and RPD's were within QC limits.

Reviewed By: Pernilla Haley 6/15/14



April 28, 2014

Service Request No: R1402713

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

Laboratory Results for: Varian Beverly/150151

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on April 16, 2014. For your reference, these analyses have been assigned our service request number **R1402713**.

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

Page 1 of 16

CC: Pemilla Haley

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402713
Project Number: 150151
Date Received: 04/16/14

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 04/07/14 and received at ALS in good condition at cooler temperatures of 4.9 – 6.0 °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

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

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

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):
R1402713-001

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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

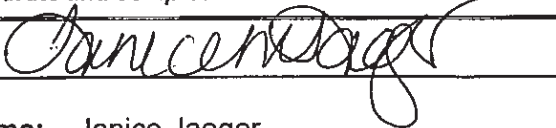
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No ¹
----------	---	-----------------------

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

¹All 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: R1402713

Lab ID
R1402713-001

Client ID
BLDG 3 LINE 8

00004

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.



Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

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
<u>Analytes</u>			<u>Methods</u>	
ALUMINIUM			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

<u>Analytes</u>	<u>Methods</u>
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/150151
 Sample Matrix: Water

Service Request: R1402713
 Date Collected: 4/7/14 1000
 Date Received: 4/16/14
 Date Analyzed: 4/17/14 18:59

Sample Name: BLDG 3 LINE 8
 Lab Code: R1402713-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041714\F7617.D\

Analysis Lot: 388593
 Instrument Name: R-MS-10
 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	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	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	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	
106-93-4	1,2-Dibromoethane	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	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	
541-73-1	1,3-Dichlorobenzene	2.0	U	2.0	
106-46-7	1,4-Dichlorobenzene	2.0	U	2.0	
123-91-1	1,4-Dioxane	40	U	40	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	2.0	U	2.0	
74-97-5	Bromochloromethane	2.0	U	2.0	
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	
75-15-0	Carbon Disulfide	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	
110-82-7	Cyclohexane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	U	2.0	
75-09-2	Dichloromethane	2.0	U	2.0	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402713
 Date Collected: 4/7/14 1000
 Date Received: 4/16/14
 Date Analyzed: 4/17/14 18:59

Sample Name: BLDG 3 LINE 8
 Lab Code: R1402713-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041714\F7617.D\

Analysis Lot: 388593
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	2.0	U	2.0	
98-82-8	Isopropylbenzene (Cumene)	2.0	U	2.0	
79-20-9	Methyl Acetate	2.0	U	2.0	
1634-04-4	Methyl tert-Butyl Ether	2.0	U	2.0	
108-87-2	Methylcyclohexane	2.0	U	2.0	
100-42-5	Styrene	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
108-88-3	Toluene	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	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
95-47-6	o-Xylene	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	93	70-130	4/17/14 18:59	
Dibromofluoromethane	97	70-130	4/17/14 18:59	
Toluene-d8	93	70-130	4/17/14 18:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402713
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/17/14 14:26

Sample Name: Method Blank
 Lab Code: RQ1403899-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041714\F7608.D\

Analysis Lot: 388593
 Instrument Name: R-MS-10
 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	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	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	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	2.0	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	2.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	
106-93-4	1,2-Dibromoethane	2.0 U	2.0	
95-50-1	1,2-Dichlorobenzene	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	
541-73-1	1,3-Dichlorobenzene	2.0 U	2.0	
106-46-7	1,4-Dichlorobenzene	2.0 U	2.0	
123-91-1	1,4-Dioxane	40 U	40	
78-93-3	2-Butanone (MEK)	10 U	10	
591-78-6	2-Hexanone	10 U	10	
108-10-1	4-Methyl-2-pentanone	10 U	10	
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	2.0 U	2.0	
74-97-5	Bromochloromethane	2.0 U	2.0	
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	
75-15-0	Carbon Disulfide	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	
110-82-7	Cyclohexane	2.0 U	2.0	
124-48-1	Dibromochloromethane	2.0 U	2.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0 U	2.0	
75-09-2	Dichloromethane	2.0 U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402713
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/17/14 14:26

Sample Name: Method Blank
 Lab Code: RQ1403899-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\041714\F7608.D\

Analysis Lot: 388593
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	2.0	U	2.0	
98-82-8	Isopropylbenzene (Cumene)	2.0	U	2.0	
79-20-9	Methyl Acetate	2.0	U	2.0	
1634-04-4	Methyl tert-Butyl Ether	2.0	U	2.0	
108-87-2	Methylcyclohexane	2.0	U	2.0	
100-42-5	Styrene	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
108-88-3	Toluene	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	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
95-47-6	o-Xylene	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	94	70-130	4/17/14 14:26	
Dibromofluoromethane	97	70-130	4/17/14 14:26	
Toluene-d8	99	70-130	4/17/14 14:26	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402713
 Date Analyzed: 4/17/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 388593

Analyte Name	Lab Control Sample RQ1403899-02			Duplicate Lab Control Sample RQ1403899-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	17.2	20.0	86	17.2	20.0	86	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	21.8	20.0	109	21.0	20.0	105	70 - 130	4	20
1,1,2-Trichloroethane	21.4	20.0	107	21.1	20.0	106	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	17.0	20.0	85	17.4	20.0	87	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	19.0	20.0	95	18.7	20.0	93	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	20.0	20.0	100	20.6	20.0	103	70 - 130	3	20
1,2,3-Trichlorobenzene	23.0	20.0	115	21.6	20.0	108	70 - 130	6	20
1,2,4-Trichlorobenzene	22.9	20.0	115	21.4	20.0	107	70 - 130	7	20
1,2-Dibromo-3-chloropropane (DBCP)	23.3	20.0	116	22.4	20.0	112	70 - 130	4	20
1,2-Dibromoethane	22.5	20.0	112	22.0	20.0	110	70 - 130	2	20
1,2-Dichlorobenzene	21.5	20.0	107	20.8	20.0	104	70 - 130	3	20
1,2-Dichloroethane	18.3	20.0	92	18.5	20.0	93	70 - 130	1	20
1,2-Dichloropropane	20.6	20.0	103	21.2	20.0	106	70 - 130	3	20
1,3-Dichlorobenzene	20.1	20.0	100	20.2	20.0	101	70 - 130	<1	20
1,4-Dichlorobenzene	20.0	20.0	100	19.9	20.0	100	70 - 130	<1	20
1,4-Dioxane	543	400	136	484	400	121	40 - 160	12	20
2-Butanone (MEK)	23.3	20.0	116	24.0	20.0	120	40 - 160	3	20
2-Hexanone	23.6	20.0	118	23.3	20.0	116	40 - 160	1	20
4-Methyl-2-pentanone	23.8	20.0	119	22.9	20.0	115	40 - 160	4	20
Acetone	23.8	20.0	119	20.8	20.0	104	40 - 160	13	20
Benzene	19.7	20.0	98	20.0	20.0	100	70 - 130	2	20
Bromochloromethane	21.4	20.0	107	21.2	20.0	106	70 - 130	1	20
Bromodichloromethane	19.7	20.0	98	19.8	20.0	99	70 - 130	<1	20
Bromoform	21.8	20.0	109	21.2	20.0	106	70 - 130	3	20
Bromomethane	25.7	20.0	128	27.4	20.0	137	40 - 160	6	20
Carbon Disulfide	20.4	20.0	102	20.8	20.0	104	70 - 130	2	20
Carbon Tetrachloride	18.0	20.0	90	17.7	20.0	89	70 - 130	2	20
Chlorobenzene	19.9	20.0	99	19.6	20.0	98	70 - 130	1	20
Chloroethane	17.4	20.0	87	17.3	20.0	87	70 - 130	<1	20
Chloroform	18.6	20.0	93	18.3	20.0	91	70 - 130	2	20
Chloromethane	19.8	20.0	99	19.7	20.0	98	40 - 160	<1	20
Cyclohexane	14.8	20.0	74	16.5	20.0	82	70 - 130	11	20
Dibromochloromethane	21.1	20.0	105	20.9	20.0	104	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/150151
 Sample Matrix: Water

Service Request: R1402713

Date Analyzed: 4/17/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 388593

Analyte Name	Lab Control Sample RQ1403899-02			Duplicate Lab Control Sample RQ1403899-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dichlorodifluoromethane (CFC 12)	18.8	20.0	94	18.7	20.0	93	40 - 160	<1	20
Dichloromethane	20.4	20.0	102	19.9	20.0	99	70 - 130	3	20
Ethylbenzene	19.7	20.0	98	19.6	20.0	98	70 - 130	<1	20
Isopropylbenzene (Cumene)	19.6	20.0	98	19.9	20.0	99	70 - 130	2	20
Methyl Acetate	21.3	20.0	106	21.5	20.0	108	70 - 130	1	20
Methyl tert-Butyl Ether	22.6	20.0	113	21.5	20.0	108	70 - 130	5	20
Methylcyclohexane	15.7	20.0	78	17.0	20.0	85	70 - 130	8	20
Styrene	21.3	20.0	107	20.6	20.0	103	70 - 130	3	20
Tetrachloroethene (PCE)	19.4	20.0	97	19.1	20.0	95	70 - 130	2	20
Toluene	19.2	20.0	96	19.5	20.0	97	70 - 130	2	20
Trichloroethene (TCE)	19.1	20.0	95	19.8	20.0	99	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	16.4	20.0	82	16.4	20.0	82	70 - 130	<1	20
Vinyl Chloride	19.0	20.0	95	19.1	20.0	96	70 - 130	<1	20
cis-1,2-Dichloroethene	18.8	20.0	94	18.8	20.0	94	70 - 130	<1	20
cis-1,3-Dichloropropene	20.6	20.0	103	20.4	20.0	102	70 - 130	<1	20
m,p-Xylenes	40.8	40.0	102	40.7	40.0	102	70 - 130	<1	20
o-Xylene	21.0	20.0	105	20.7	20.0	103	70 - 130	2	20
trans-1,2-Dichloroethene	18.7	20.0	94	19.1	20.0	95	70 - 130	2	20
trans-1,3-Dichloropropene	20.8	20.0	104	20.7	20.0	103	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.



Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number R14-271.3

Cooler received on 4-16-14 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: 6.0° 4.9°

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: 4-16-14 @ 09:38

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 R-002 by RE on 4-16-14 at 09:45
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: JAN 4/16/14

Cooler Breakdown: Date: 4/16/14 Time: 1458 by: RE

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	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO							
≥12	NaOH									No = Samples were preserved at lab as listed PM OK to Adjust:
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-							*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet
	Zn Aceta	-	-							
	HCl	*	*							

Bottle lot numbers: 3-212-002

Other Comments:

* Bldg 3 Line 8: 1 of 3 vials has significant headspace.
RE 4-16-14

PC Secondary Review: MAN 4/16/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Prepared By: Dale Dailey
Matrix: Groundwater, Soil
Analyte Group : Volatile Organics
 General Chemistry
 Metals
 Gasoline Range Organics
 Semivolatile Organics
 Polychlorinated Biphenyls (PCB's)
 Diesel and Residual Range Organics

Job Number : 150151
Date : 6/5/2014
Analytical Method : EPA Method 8260C
 9014, 1010A, 9040C, 9034, 9045D, 160.3, 9034
 EPA 6010C and 7470A
 8015C
 8270D
 8082A
 8015C

Completed MADEP CAM Certification Form included: No
Chain of Custody included in Data Package ? Yes

Laboratory ID No. : R1402720
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
4/11/2014	8260C		14 Days	4/18, 4/23/2014
4/11/2014	9014, 1010A, 9040C, 9034, 9045D, 160.3		14 Days	4/18, 4/21/14
4/11/2014	6010C		180 Days	4/22, 4/23/2014
4/11/2014	7470A		28 Days	4/17/14
4/11/2014	8270D	14 Days	40 Days	4/18/14
4/11/2014	8082A	14 Days	40 Days	4/18, 4/21/14
4/11/2014	8015C (Gasoline Range)		14 Days	4/18, 4/19/14
4/11/2014	8015C (Diesel Range)	7 Days	40 Days	4/21, 4/22/14

Sample temperature within QC limits: Yes, 6.0° 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 : None
Trip Blank ID : None

Method Blank: 9014, 9034, 160.3, 9014, 1010A 4/21/2014
 6010 C, 7470A 4/22/2014
 8260C 4/18/2014, 4/23/14
 8015C 4/18, 4/19, 4/21/14
 8270D 4/18/2014
 8082A 4/18/2014

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:

VOC: All LCS and LCSD recoveries were within QC limits except for 1,1,2-Trichloro-1,2,2,-trifluoroethane on 4/18/14, which has been flagged with an ***. The data was not impacted since the analytical results were non-detect for these analytes in this batch.

SVOC: Various LCS and LCSD recoveries were outside QC limits on 4/18/14, and all analytes have 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 6/15/19



April 28, 2014

Service Request No: R1402720

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

Laboratory Results for: Varian Beverly/150151

Dear Mr. Cadorette:

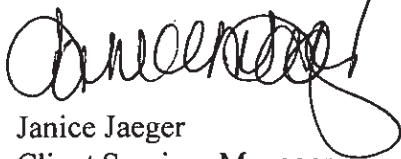
Enclosed are the results of the sample(s) submitted to our laboratory on April 16, 2014. For your reference, these analyses have been assigned our service request number **R1402720**.

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

Page 1 of 86

CC: Pemilla Haley

CASE NARRATIVE

Client:	CB&I	Service Request:	R1402720
Project:	Varian Beverly	Project Number:	
Sample Matrix:	Soil/Water	Date Received:	04/16/14

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. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 04/11/14 and received at ALS on 04/16/14 at a cooler temperature of 4.4°C in good condition except as noted on the cooler receipt and preservation check form. ALS Environmental is responsible only for the analytical testing and are not directly responsible for the integrity of the sample before laboratory receipt.

Inorganic Analysis

Two soil samples and one water sample were analyzed for a site specific list of parameters. Please see attached data pages for method numbers.

Site specific QC was not requested on these samples. All LCS recoveries were acceptable.

The Method blanks associated with these analyses were free of contamination above the Method Reporting Limit (MRL).

No other analytical or QC problems were encountered.

Metals Analysis

Two soil samples and one water sample were analyzed for a site specific list of parameters. Please see attached data pages for method numbers.

Site specific QC was not requested on these samples

The Method blanks associated with these analyses were free of contamination above the Method Reporting Limit (MRL).

No other analytical or QC problems were encountered.

Volatile Organics

Two soil samples and one water sample were analyzed for a site specific list of Volatiles by method 5035/8260C from SW-846.

All initial calibration criteria were met for all analytes. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Freon 113 on the 04/13/14 CCV and Dichlorodifluoromethane, Acetone and 1,4-Dioxane on the 04/23/14 CCV. No data was affected.

All Tuning criteria were within QC limits.

All Laboratory Control Sample (LCS) recoveries were within limits except Freon 113 was outside limits high on the 04/18/14 LCS and has been flagged with an "**". No data was affected.

Site specific QC was not requested on these samples.

All Internal Standard Areas were within limits.

All surrogate standard recoveries were within limits.

The Method blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

Semivolatile Organics

Two soil samples and one water sample were analyzed for a site specific list of Semivolatiles by method 8270D from SW-846.

All initial and continuing calibration criteria were met for all analytes.

All Tuning criteria were within limits.

All Internal Standard Areas were acceptable.

Various LCS/LCSD recoveries were outside limits high and have been flagged with an "**". No data was affected. All RPD's were acceptable.

Site specific QC was not requested for these samples.

All surrogate standard recoveries were within limits.

The Method blanks associated with these samples were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

Gasoline Range Organics (GRO)

Two soil samples and one water sample were analyzed for GRO by method 8015C from SW-846.

All initial and continuing calibration criteria were met for all analytes.

The LCS/LCSD recoveries and RPD's were acceptable.

Site specific QC was not requested on these samples.

All surrogate standard recoveries were within limits.

The Method blanks were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

PCB's

Two soil samples and one water samples were analyzed for PCB's by method 8082A from SW-846.

All initial and continuing calibration criteria were met.

The LCS/LCSD recoveries and RPD's were all acceptable.

Site specific QC was not requested on these samples.

The Method blanks were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

Diesel Range Organics (DRO)

Two soil samples and one water samples were analyzed for DRO by method 8015C from SW-846.

All initial and continuing calibration criteria were met.

The LCS/LCSD recoveries and RPD's were all acceptable.

Site specific QC was not requested on these samples.

The Method blanks were free of contamination.

All samples were analyzed within recommended holding times.

No other analytical or QC problems were encountered.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402720

<u>Lab ID</u>	<u>Client ID</u>
R1402720-001	VARIAN-WC01
R1402720-002	VARIAN-WC02
R1402720-003	VARIAN-WC-03

00005



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/Aroclors).
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.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State ID, State Name, and State ID #. Rows include Maine, New Hampshire, Connecticut, Nebraska, Delaware, Nevada, DoD ELAP, New Jersey, Florida, New York, Illinois, Pennsylvania, Rhode Island, and Virginia.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads -



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.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water
 Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	20	U	mg/Kg	20	1	4/21/14	4/21/14 15:43	
Flash Point	1010A	>100		deg C		1	NA	4/21/14 10:30	
pH	9040C	7.32		pH Units		1	NA	4/18/14 16:45	
Sulfide, Reactive	9034 Modified	99	U	mg/Kg	99	1	4/21/14	4/21/01 09:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water
 Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 13:14	
Barium, Total	6010C	38		µg/L	20	1	4/21/14	4/22/14 13:14	
Cadmium, Total	6010C	5.0	U	µg/L	5.0	1	4/21/14	4/22/14 13:14	
Chromium, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 13:14	
Lead, Total	6010C	50	U	µg/L	50	1	4/21/14	4/22/14 13:14	
Mercury, Total	7470A	0.20	U	µg/L	0.20	1	4/17/14	4/17/14 18:36	
Selenium, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 13:14	
Silver, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 13:14	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Analyzed: 4/23/14 12:40

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042314\F7825.D\

Analysis Lot: 389418
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	1.0	U	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	
106-93-4	1,2-Dibromoethane	1.0	U	1.0	
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	
107-06-2	1,2-Dichloroethane	1.0	U	1.0	
78-87-5	1,2-Dichloropropane	1.0	U	1.0	
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	
123-91-1	1,4-Dioxane	40	U	40	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	
591-78-6	2-Hexanone	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	
67-64-1	Acetone	6.4		5.0	
71-43-2	Benzene	1.0	U	1.0	
74-97-5	Bromochloromethane	1.0	U	1.0	
75-27-4	Bromodichloromethane	1.0	U	1.0	
75-25-2	Bromoform	1.0	U	1.0	
74-83-9	Bromomethane	1.0	U	1.0	
75-15-0	Carbon Disulfide	1.0	U	1.0	
56-23-5	Carbon Tetrachloride	1.0	U	1.0	
108-90-7	Chlorobenzene	1.0	U	1.0	
75-00-3	Chloroethane	1.0	U	1.0	
67-66-3	Chloroform	1.4		1.0	
74-87-3	Chloromethane	1.0	U	1.0	
110-82-7	Cyclohexane	1.0	U	1.0	
124-48-1	Dibromochloromethane	1.0	U	1.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	
75-09-2	Dichloromethane	1.0	U	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Analyzed: 4/23/14 12:40

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042314\F7825.D\

Analysis Lot: 389418
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	1.0	U	1.0	
98-82-8	Isopropylbenzene (Cumene)	1.0	U	1.0	
79-20-9	Methyl Acetate	2.0	U	2.0	
1634-04-4	Methyl tert-Butyl Ether	1.0	U	1.0	
108-87-2	Methylcyclohexane	1.0	U	1.0	
100-42-5	Styrene	1.0	U	1.0	
127-18-4	Tetrachloroethene (PCE)	1.0	U	1.0	
108-88-3	Toluene	1.0	U	1.0	
79-01-6	Trichloroethene (TCE)	1.0	U	1.0	
75-69-4	Trichlorofluoromethane (CFC 11)	1.0	U	1.0	
75-01-4	Vinyl Chloride	1.0	U	1.0	
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
95-47-6	o-Xylene	1.0	U	1.0	
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	4/23/14 12:40	
Dibromofluoromethane	101	89-119	4/23/14 12:40	
Toluene-d8	98	87-121	4/23/14 12:40	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Analyzed: 4/18/14 16:47

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Gasoline Range Organics by GC

Analytical Method: 8015C
 Data File Name: 1007.run

Analysis Lot: 388950
 Instrument Name: R-GC-06
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
8006-61-9	Gasoline Range Organics as C6-C10 Commercial Fuel	250	U	250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
3-Fluorochlorobenzene	90	73-112	4/18/14 16:47	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:56

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUDATA\5973D\Data\041814\AT757.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	9.4	U	9.4	
58-90-2	2,3,4,6-Tetrachlorophenol	9.4	U	9.4	
95-95-4	2,4,5-Trichlorophenol	9.4	U	9.4	
88-06-2	2,4,6-Trichlorophenol	9.4	U	9.4	
120-83-2	2,4-Dichlorophenol	9.4	U	9.4	
105-67-9	2,4-Dimethylphenol	9.4	U	9.4	
51-28-5	2,4-Dinitrophenol	47	U	47	
121-14-2	2,4-Dinitrotoluene	9.4	U	9.4	
606-20-2	2,6-Dinitrotoluene	9.4	U	9.4	
91-58-7	2-Chloronaphthalene	9.4	U	9.4	
95-57-8	2-Chlorophenol	9.4	U	9.4	
91-57-6	2-Methylnaphthalene	9.4	U	9.4	
95-48-7	2-Methylphenol	9.4	U	9.4	
88-74-4	2-Nitroaniline	47	U	47	
88-75-5	2-Nitrophenol	9.4	U	9.4	
91-94-1	3,3'-Dichlorobenzidine	9.4	U	9.4	
	3- and 4-Methylphenol Coelution	9.4	U	9.4	
99-09-2	3-Nitroaniline	47	U	47	
534-52-1	4,6-Dinitro-2-methylphenol	47	U	47	
101-55-3	4-Bromophenyl Phenyl Ether	9.4	U	9.4	
59-50-7	4-Chloro-3-methylphenol	9.4	U	9.4	
106-47-8	4-Chloroaniline	9.4	U	9.4	
7005-72-3	4-Chlorophenyl Phenyl Ether	9.4	U	9.4	
100-01-6	4-Nitroaniline	47	U	47	
100-02-7	4-Nitrophenol	47	U	47	
83-32-9	Acenaphthene	9.4	U	9.4	
208-96-8	Acenaphthylene	9.4	U	9.4	
98-86-2	Acetophenone	9.4	U	9.4	
120-12-7	Anthracene	9.4	U	9.4	
1912-24-9	Atrazine	9.4	U	9.4	
56-55-3	Benz(a)anthracene	9.4	U	9.4	
100-52-7	Benzaldehyde	47	U	47	
50-32-8	Benzo(a)pyrene	9.4	U	9.4	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:56

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUATA\5973D\Data\041814\AT757.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	9.4	U	9.4	
191-24-2	Benzo(g,h,i)perylene	9.4	U	9.4	
207-08-9	Benzo(k)fluoranthene	9.4	U	9.4	
92-52-4	Biphenyl	9.4	U	9.4	
108-60-1	2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	
111-91-1	Bis(2-chloroethoxy)methane	9.4	U	9.4	
111-44-4	Bis(2-chloroethyl) Ether	9.4	U	9.4	
117-81-7	Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	
85-68-7	Butyl Benzyl Phthalate	9.4	U	9.4	
105-60-2	Caprolactam	9.4	U	9.4	
86-74-8	Carbazole	9.4	U	9.4	
218-01-9	Chrysene	9.4	U	9.4	
84-74-2	Di-n-butyl Phthalate	9.4	U	9.4	
117-84-0	Di-n-octyl Phthalate	9.4	U	9.4	
53-70-3	Dibenz(a,h)anthracene	9.4	U	9.4	
132-64-9	Dibenzofuran	9.4	U	9.4	
84-66-2	Diethyl Phthalate	9.4	U	9.4	
131-11-3	Dimethyl Phthalate	9.4	U	9.4	
206-44-0	Fluoranthene	9.4	U	9.4	
86-73-7	Fluorene	9.4	U	9.4	
118-74-1	Hexachlorobenzene	9.4	U	9.4	
87-68-3	Hexachlorobutadiene	9.4	U	9.4	
77-47-4	Hexachlorocyclopentadiene	9.4	U	9.4	
67-72-1	Hexachloroethane	9.4	U	9.4	
193-39-5	Indeno(1,2,3-cd)pyrene	9.4	U	9.4	
78-59-1	Isophorone	9.4	U	9.4	
621-64-7	N-Nitrosodi-n-propylamine	9.4	U	9.4	
86-30-6	N-Nitrosodiphenylamine	9.4	U	9.4	
91-20-3	Naphthalene	9.4	U	9.4	
98-95-3	Nitrobenzene	9.4	U	9.4	
87-86-5	Pentachlorophenol (PCP)	47	U	47	
85-01-8	Phenanthrene	9.4	U	9.4	
108-95-2	Phenol	9.4	U	9.4	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:56

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUDATA\5973D\Data\041814\AT757.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
129-00-0	Pyrene	9.4	U	9.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	121	28-157	4/18/14 13:56	
2-Fluorobiphenyl	86	39-119	4/18/14 13:56	
2-Fluorophenol	43	10-105	4/18/14 13:56	
Nitrobenzene-d5	86	37-117	4/18/14 13:56	
Phenol-d6	32	10-107	4/18/14 13:56	
Terphenyl-d14	112	40-133	4/18/14 13:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 17:55

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUADATA\GCEXT4\DATA\041814\NM431.D\

Analysis Lot: 388987
 Extraction Lot: 206382
 Instrument Name: R-GC-56
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.94	U	0.94	
11104-28-2	Aroclor 1221	1.9	U	1.9	
11141-16-5	Aroclor 1232	0.94	U	0.94	
53469-21-9	Aroclor 1242	0.94	U	0.94	
12672-29-6	Aroclor 1248	0.94	U	0.94	
11097-69-1	Aroclor 1254	0.94	U	0.94	
11096-82-5	Aroclor 1260	0.94	U	0.94	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	63	10-124	4/18/14 17:55	
Tetrachloro-m-xylene	77	11-131	4/18/14 17:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Date Extracted: 4/18/14
 Date Analyzed: 4/21/14 08:48

Sample Name: VARIAN-WC01
 Lab Code: R1402720-001

Units: µg/L
 Basis: NA

Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUADATA\68901\DATA\042114\AS628.D\

Analysis Lot: 389021
 Extraction Lot: 206509
 Instrument Name: R-GC-59
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
68334-30-5	Diesel Range Organics (DRO) as C10-C28	490		94	
	Alkanes				
	C28 - C40 ORO	250		94	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
o-Terphenyl	81	40-147	4/21/14 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Flash Point	1010A Modified	>100	deg C		1	NA	4/21/14 10:30	
pH	9045D	7.67	pH Units		1	NA	4/21/14 13:38	
Solids, Total	160.3 Modified	81.6	Percent	1.0	1	NA	4/21/14 11:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14

Basis: Dry
 Percent Solids: 81.6

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	23	U	mg/Kg	23	1	4/21/14	4/21/14 15:51	
Sulfide, Reactive	9034 Modified	120	U	mg/Kg	120	1	4/21/14	4/21/01 09:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14

Basis: Dry
 Percent Solids: 81.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	33.8		mg/Kg	1.2	1	4/18/14	4/22/14 00:55	
Barium, Total	6010C	60		mg/Kg	24	10	4/18/14	4/23/14 14:57	
Cadmium, Total	6010C	248		mg/Kg	6.0	10	4/18/14	4/23/14 14:57	
Chromium, Total	6010C	452		mg/Kg	1.2	1	4/18/14	4/22/14 00:55	
Lead, Total	6010C	441		mg/Kg	60	10	4/18/14	4/23/14 14:57	
Mercury, Total	7471B	0.401		mg/Kg	0.037	1	4/17/14	4/17/14 19:24	
Selenium, Total	6010C	12	U	mg/Kg	12	10	4/18/14	4/23/14 14:57	
Silver, Total	6010C	38.3		mg/Kg	1.2	1	4/18/14	4/22/14 00:55	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Analyzed: 4/18/14 17:47

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\041814\K8518.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	6.1	U	6.1	
79-34-5	1,1,2,2-Tetrachloroethane	6.1	U	6.1	
79-00-5	1,1,2-Trichloroethane	6.1	U	6.1	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	U	6.1	
75-34-3	1,1-Dichloroethane (1,1-DCA)	6.1	U	6.1	
75-35-4	1,1-Dichloroethene (1,1-DCE)	6.1	U	6.1	
87-61-6	1,2,3-Trichlorobenzene	6.1	U	6.1	
120-82-1	1,2,4-Trichlorobenzene	6.1	U	6.1	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	6.1	U	6.1	
106-93-4	1,2-Dibromoethane	6.1	U	6.1	
95-50-1	1,2-Dichlorobenzene	6.1	U	6.1	
107-06-2	1,2-Dichloroethane	6.1	U	6.1	
78-87-5	1,2-Dichloropropane	6.1	U	6.1	
541-73-1	1,3-Dichlorobenzene	6.1	U	6.1	
106-46-7	1,4-Dichlorobenzene	6.1	U	6.1	
123-91-1	1,4-Dioxane	120	U	120	
78-93-3	2-Butanone (MEK)	6.1	U	6.1	
591-78-6	2-Hexanone	6.1	U	6.1	
108-10-1	4-Methyl-2-pentanone	6.1	U	6.1	
67-64-1	Acetone	6.1	U	6.1	
71-43-2	Benzene	6.1	U	6.1	
74-97-5	Bromochloromethane	6.1	U	6.1	
75-27-4	Bromodichloromethane	6.1	U	6.1	
75-25-2	Bromoform	6.1	U	6.1	
74-83-9	Bromomethane	6.1	U	6.1	
75-15-0	Carbon Disulfide	6.1	U	6.1	
56-23-5	Carbon Tetrachloride	6.1	U	6.1	
108-90-7	Chlorobenzene	6.1	U	6.1	
75-00-3	Chloroethane	6.1	U	6.1	
67-66-3	Chloroform	6.1	U	6.1	
74-87-3	Chloromethane	6.1	U	6.1	
110-82-7	Cyclohexane	6.1	U	6.1	
124-48-1	Dibromochloromethane	6.1	U	6.1	
75-71-8	Dichlorodifluoromethane (CFC 12)	6.1	U	6.1	
75-09-2	Dichloromethane	6.1	U	6.1	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Analyzed: 4/18/14 17:47

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041814\K8518.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	6.1	U	6.1	
98-82-8	Isopropylbenzene (Cumene)	6.1	U	6.1	
79-20-9	Methyl Acetate	6.1	U	6.1	
1634-04-4	Methyl tert-Butyl Ether	6.1	U	6.1	
108-87-2	Methylcyclohexane	6.1	U	6.1	
100-42-5	Styrene	6.1	U	6.1	
127-18-4	Tetrachloroethene (PCE)	6.1	U	6.1	
108-88-3	Toluene	6.1	U	6.1	
79-01-6	Trichloroethene (TCE)	6.1	U	6.1	
75-69-4	Trichlorofluoromethane (CFC 11)	6.1	U	6.1	
75-01-4	Vinyl Chloride	6.1	U	6.1	
156-59-2	cis-1,2-Dichloroethene	6.1	U	6.1	
10061-01-5	cis-1,3-Dichloropropene	6.1	U	6.1	
179601-23-1	m,p-Xylenes	12	U	12	
95-47-6	o-Xylene	6.1	U	6.1	
156-60-5	trans-1,2-Dichloroethene	6.1	U	6.1	
10061-02-6	trans-1,3-Dichloropropene	6.1	U	6.1	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	51-136	4/18/14 17:47	
Dibromofluoromethane	95	63-138	4/18/14 17:47	
Toluene-d8	98	66-138	4/18/14 17:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Analyzed: 4/19/14 14:20

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Gasoline Range Organics by GC

Analytical Method: 8015C
 Data File Name: 1005.run

Analysis Lot: 388999
 Instrument Name: R-GC-06
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
8006-61-9	Gasoline Range Organics as C6-C10 Commercial Fuel	61 U	61	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
3-Fluorochlorobenzene	85	35-142	4/19/14 14:20	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 21:40

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973A\DATA\041814\CY954.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	1200	U	1200	
58-90-2	2,3,4,6-Tetrachlorophenol	1200	U	1200	
95-95-4	2,4,5-Trichlorophenol	1200	U	1200	
88-06-2	2,4,6-Trichlorophenol	1200	U	1200	
120-83-2	2,4-Dichlorophenol	1200	U	1200	
105-67-9	2,4-Dimethylphenol	1200	U	1200	
51-28-5	2,4-Dinitrophenol	6300	U	6300	
121-14-2	2,4-Dinitrotoluene	1200	U	1200	
606-20-2	2,6-Dinitrotoluene	1200	U	1200	
91-58-7	2-Chloronaphthalene	1200	U	1200	
95-57-8	2-Chlorophenol	1200	U	1200	
91-57-6	2-Methylnaphthalene	1200	U	1200	
95-48-7	2-Methylphenol	1200	U	1200	
88-74-4	2-Nitroaniline	6300	U	6300	
88-75-5	2-Nitrophenol	1200	U	1200	
91-94-1	3,3'-Dichlorobenzidine	1200	U	1200	
	3- and 4-Methylphenol Coelution	1200	U	1200	
99-09-2	3-Nitroaniline	6300	U	6300	
534-52-1	4,6-Dinitro-2-methylphenol	6300	U	6300	
101-55-3	4-Bromophenyl Phenyl Ether	1200	U	1200	
59-50-7	4-Chloro-3-methylphenol	1200	U	1200	
106-47-8	4-Chloroaniline	1200	U	1200	
7005-72-3	4-Chlorophenyl Phenyl Ether	1200	U	1200	
100-01-6	4-Nitroaniline	6300	U	6300	
100-02-7	4-Nitrophenol	6300	U	6300	
83-32-9	Acenaphthene	1200	U	1200	
208-96-8	Acenaphthylene	1200	U	1200	
98-86-2	Acetophenone	1200	U	1200	
120-12-7	Anthracene	1700		1200	
1912-24-9	Atrazine	1200	U	1200	
56-55-3	Benz(a)anthracene	7600		1200	
100-52-7	Benzaldehyde	6300	U	6300	
50-32-8	Benzo(a)pyrene	4600		1200	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 21:40

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQDATA\5973A\DATA\041814\CY954.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	11000		1200	
191-24-2	Benzo(g,h,i)perylene	5200		1200	
207-08-9	Benzo(k)fluoranthene	4000		1200	
92-52-4	Biphenyl	1200	U	1200	
108-60-1	2,2'-Oxybis(1-chloropropane)	1200	U	1200	
111-91-1	Bis(2-chloroethoxy)methane	1200	U	1200	
111-44-4	Bis(2-chloroethyl) Ether	1200	U	1200	
117-81-7	Bis(2-ethylhexyl) Phthalate	9100		1200	
85-68-7	Butyl Benzyl Phthalate	1200	U	1200	
105-60-2	Caprolactam	1200	U	1200	
86-74-8	Carbazole	1900		1200	
218-01-9	Chrysene	8900		1200	
84-74-2	Di-n-butyl Phthalate	1200	U	1200	
117-84-0	Di-n-octyl Phthalate	1200	U	1200	
53-70-3	Dibenz(a,h)anthracene	1500		1200	
132-64-9	Dibenzofuran	1200	U	1200	
84-66-2	Diethyl Phthalate	1200	U	1200	
131-11-3	Dimethyl Phthalate	1200	U	1200	
206-44-0	Fluoranthene	13000		1200	
86-73-7	Fluorene	1200	U	1200	
118-74-1	Hexachlorobenzene	1200	U	1200	
87-68-3	Hexachlorobutadiene	1200	U	1200	
77-47-4	Hexachlorocyclopentadiene	1200	U	1200	
67-72-1	Hexachloroethane	1200	U	1200	
193-39-5	Indeno(1,2,3-cd)pyrene	6300		1200	
78-59-1	Isophorone	1200	U	1200	
621-64-7	N-Nitrosodi-n-propylamine	1200	U	1200	
86-30-6	N-Nitrosodiphenylamine	1200	U	1200	
91-20-3	Naphthalene	1200	U	1200	
98-95-3	Nitrobenzene	1200	U	1200	
87-86-5	Pentachlorophenol (PCP)	6300	U	6300	
85-01-8	Phenanthrene	5700		1200	
108-95-2	Phenol	1200	U	1200	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 21:40

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\5973A\DATA\041814\CY954.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	Note
129-00-0	Pyrene	10000		1200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	69	41-151	4/18/14 21:40	
2-Fluorobiphenyl	72	47-126	4/18/14 21:40	
2-Fluorophenol	58	16-129	4/18/14 21:40	
Nitrobenzene-d5	54	39-136	4/18/14 21:40	
Phenol-d6	62	10-145	4/18/14 21:40	
Terphenyl-d14	89	35-152	4/18/14 21:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Extracted: 4/21/14
 Date Analyzed: 4/21/14 17:37

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\6890G\DATA\042114\AW977.D\

Analysis Lot: 389188
 Extraction Lot: 206542
 Instrument Name: R-GC-58
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	200	U	200	
11104-28-2	Aroclor 1221	410	U	410	
11141-16-5	Aroclor 1232	200	U	200	
53469-21-9	Aroclor 1242	200	U	200	
12672-29-6	Aroclor 1248	200	U	200	
11097-69-1	Aroclor 1254	560		200	
11096-82-5	Aroclor 1260	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	22-150	4/21/14 17:37	
Tetrachloro-m-xylene	69	10-126	4/21/14 17:37	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Date Extracted: 4/21/14
 Date Analyzed: 4/22/14 10:29

Sample Name: VARIAN-WC02
 Lab Code: R1402720-002

Units: µg/Kg
 Basis: Dry
 Percent Solids: 81.6

Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\6890\DATA\042214\AS640.D\

Analysis Lot: 389368
 Extraction Lot: 206625
 Instrument Name: R-GC-59
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
68334-30-5	Diesel Range Organics (DRO) as C10-C28	190000		49000	
	Alkanes				
	C28 - C40 ORO	69000		49000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
o-Terphenyl	83	50-150	4/22/14 10:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Flash Point	1010A Modified	>100	deg C		1	NA	4/21/14 10:30	
pH	9045D	8.63	pH Units		1	NA	4/21/14 13:38	
Solids, Total	160.3 Modified	77.3	Percent	1.0	1	NA	4/21/14 11:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14

Basis: Dry
 Percent Solids: 77.3

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	26	U	mg/Kg	26	1	4/21/14	4/21/14 15:48	
Sulfide, Reactive	9034 Modified	130	U	mg/Kg	130	1	4/21/14	4/21/01 09:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Basis: Dry
 Percent Solids: 77.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	41.2		mg/Kg	1.2	1	4/18/14	4/22/14 01:00	
Barium, Total	6010C	46		mg/Kg	25	10	4/18/14	4/23/14 15:03	
Cadmium, Total	6010C	102		mg/Kg	0.62	1	4/18/14	4/22/14 01:00	
Chromium, Total	6010C	499		mg/Kg	1.2	1	4/18/14	4/22/14 01:00	
Lead, Total	6010C	392		mg/Kg	62	10	4/18/14	4/23/14 15:03	
Mercury, Total	7471B	0.098		mg/Kg	0.043	1	4/17/14	4/17/14 19:26	
Selenium, Total	6010C	12	U	mg/Kg	12	10	4/18/14	4/23/14 15:03	
Silver, Total	6010C	64.6		mg/Kg	1.2	1	4/18/14	4/22/14 01:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Analyzed: 4/18/14 18:24

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\041814\K8519.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	6.5	U	6.5	
79-34-5	1,1,2,2-Tetrachloroethane	6.5	U	6.5	
79-00-5	1,1,2-Trichloroethane	6.5	U	6.5	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.5	U	6.5	
75-34-3	1,1-Dichloroethane (1,1-DCA)	6.5	U	6.5	
75-35-4	1,1-Dichloroethene (1,1-DCE)	6.5	U	6.5	
87-61-6	1,2,3-Trichlorobenzene	6.5	U	6.5	
120-82-1	1,2,4-Trichlorobenzene	6.5	U	6.5	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	6.5	U	6.5	
106-93-4	1,2-Dibromoethane	6.5	U	6.5	
95-50-1	1,2-Dichlorobenzene	6.5	U	6.5	
107-06-2	1,2-Dichloroethane	6.5	U	6.5	
78-87-5	1,2-Dichloropropane	6.5	U	6.5	
541-73-1	1,3-Dichlorobenzene	6.5	U	6.5	
106-46-7	1,4-Dichlorobenzene	6.5	U	6.5	
123-91-1	1,4-Dioxane	130	U	130	
78-93-3	2-Butanone (MEK)	6.5	U	6.5	
591-78-6	2-Hexanone	6.5	U	6.5	
108-10-1	4-Methyl-2-pentanone	6.5	U	6.5	
67-64-1	Acetone	6.5	U	6.5	
71-43-2	Benzene	6.5	U	6.5	
74-97-5	Bromochloromethane	6.5	U	6.5	
75-27-4	Bromodichloromethane	6.5	U	6.5	
75-25-2	Bromoform	6.5	U	6.5	
74-83-9	Bromomethane	6.5	U	6.5	
75-15-0	Carbon Disulfide	6.5	U	6.5	
56-23-5	Carbon Tetrachloride	6.5	U	6.5	
108-90-7	Chlorobenzene	6.5	U	6.5	
75-00-3	Chloroethane	6.5	U	6.5	
67-66-3	Chloroform	6.5	U	6.5	
74-87-3	Chloromethane	6.5	U	6.5	
110-82-7	Cyclohexane	6.5	U	6.5	
124-48-1	Dibromochloromethane	6.5	U	6.5	
75-71-8	Dichlorodifluoromethane (CFC 12)	6.5	U	6.5	
75-09-2	Dichloromethane	6.5	U	6.5	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 14:15
 Date Received: 4/16/14
 Date Analyzed: 4/18/14 18:24

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA7\DATA\041814\K8519.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	6.5	U	6.5	
98-82-8	Isopropylbenzene (Cumene)	6.5	U	6.5	
79-20-9	Methyl Acetate	6.5	U	6.5	
1634-04-4	Methyl tert-Butyl Ether	6.5	U	6.5	
108-87-2	Methylcyclohexane	6.5	U	6.5	
100-42-5	Styrene	6.5	U	6.5	
127-18-4	Tetrachloroethene (PCE)	7.7		6.5	
108-88-3	Toluene	6.5	U	6.5	
79-01-6	Trichloroethene (TCE)	6.5	U	6.5	
75-69-4	Trichlorofluoromethane (CFC 11)	6.5	U	6.5	
75-01-4	Vinyl Chloride	6.5	U	6.5	
156-59-2	cis-1,2-Dichloroethene	6.5	U	6.5	
10061-01-5	cis-1,3-Dichloropropene	6.5	U	6.5	
179601-23-1	m,p-Xylenes	13	U	13	
95-47-6	o-Xylene	6.5	U	6.5	
156-60-5	trans-1,2-Dichloroethene	6.5	U	6.5	
10061-02-6	trans-1,3-Dichloropropene	6.5	U	6.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	51-136	4/18/14 18:24	
Dibromofluoromethane	93	63-138	4/18/14 18:24	
Toluene-d8	99	66-138	4/18/14 18:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Analyzed: 4/19/14 15:15

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Gasoline Range Organics by GC

Analytical Method: 8015C
 Data File Name: 1006.run

Analysis Lot: 388999
 Instrument Name: R-GC-06
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
8006-61-9	Gasoline Range Organics as C6-C10 Commercial Fuel	65	U	65	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
3-Fluorochlorobenzene	84	35-142	4/19/14 15:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 22:06

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973A\DATA\041814\CY955.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	1300	U	1300	
58-90-2	2,3,4,6-Tetrachlorophenol	1300	U	1300	
95-95-4	2,4,5-Trichlorophenol	1300	U	1300	
88-06-2	2,4,6-Trichlorophenol	1300	U	1300	
120-83-2	2,4-Dichlorophenol	1300	U	1300	
105-67-9	2,4-Dimethylphenol	1300	U	1300	
51-28-5	2,4-Dinitrophenol	6600	U	6600	
121-14-2	2,4-Dinitrotoluene	1300	U	1300	
606-20-2	2,6-Dinitrotoluene	1300	U	1300	
91-58-7	2-Chloronaphthalene	1300	U	1300	
95-57-8	2-Chlorophenol	1300	U	1300	
91-57-6	2-Methylnaphthalene	1300	U	1300	
95-48-7	2-Methylphenol	1300	U	1300	
88-74-4	2-Nitroaniline	6600	U	6600	
88-75-5	2-Nitrophenol	1300	U	1300	
91-94-1	3,3'-Dichlorobenzidine	1300	U	1300	
	3- and 4-Methylphenol Coelution	1300	U	1300	
99-09-2	3-Nitroaniline	6600	U	6600	
534-52-1	4,6-Dinitro-2-methylphenol	6600	U	6600	
101-55-3	4-Bromophenyl Phenyl Ether	1300	U	1300	
59-50-7	4-Chloro-3-methylphenol	1300	U	1300	
106-47-8	4-Chloroaniline	1300	U	1300	
7005-72-3	4-Chlorophenyl Phenyl Ether	1300	U	1300	
100-01-6	4-Nitroaniline	6600	U	6600	
100-02-7	4-Nitrophenol	6600	U	6600	
83-32-9	Acenaphthene	1300	U	1300	
208-96-8	Acenaphthylene	1300	U	1300	
98-86-2	Acetophenone	1300	U	1300	
120-12-7	Anthracene	1300	U	1300	
1912-24-9	Atrazine	1300	U	1300	
56-55-3	Benz(a)anthracene	7200		1300	
100-52-7	Benzaldehyde	6600	U	6600	
50-32-8	Benzo(a)pyrene	4000		1300	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 22:06

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973A\DATA\041814\CY955.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	11000		1300	
191-24-2	Benzo(g,h,i)perylene	5100		1300	
207-08-9	Benzo(k)fluoranthene	3900		1300	
92-52-4	Biphenyl	1300	U	1300	
108-60-1	2,2'-Oxybis(1-chloropropane)	1300	U	1300	
111-91-1	Bis(2-chloroethoxy)methane	1300	U	1300	
111-44-4	Bis(2-chloroethyl) Ether	1300	U	1300	
117-81-7	Bis(2-ethylhexyl) Phthalate	8500		1300	
85-68-7	Butyl Benzyl Phthalate	1300	U	1300	
105-60-2	Caprolactam	1300	U	1300	
86-74-8	Carbazole	1700		1300	
218-01-9	Chrysene	8900		1300	
84-74-2	Di-n-butyl Phthalate	1300	U	1300	
117-84-0	Di-n-octyl Phthalate	1300	U	1300	
53-70-3	Dibenz(a,h)anthracene	1600		1300	
132-64-9	Dibenzofuran	1300	U	1300	
84-66-2	Diethyl Phthalate	1300	U	1300	
131-11-3	Dimethyl Phthalate	1300	U	1300	
206-44-0	Fluoranthene	12000		1300	
86-73-7	Fluorene	1300	U	1300	
118-74-1	Hexachlorobenzene	1300	U	1300	
87-68-3	Hexachlorobutadiene	1300	U	1300	
77-47-4	Hexachlorocyclopentadiene	1300	U	1300	
67-72-1	Hexachloroethane	1300	U	1300	
193-39-5	Indeno(1,2,3-cd)pyrene	6100		1300	
78-59-1	Isophorone	1300	U	1300	
621-64-7	N-Nitrosodi-n-propylamine	1300	U	1300	
86-30-6	N-Nitrosodiphenylamine	1300	U	1300	
91-20-3	Naphthalene	1300	U	1300	
98-95-3	Nitrobenzene	1300	U	1300	
87-86-5	Pentachlorophenol (PCP)	6600	U	6600	
85-01-8	Phenanthrene	2700		1300	
108-95-2	Phenol	1300	U	1300	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 22:06

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\5973A\DATA\041814\CY955.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 3

CAS No.	Analyte Name	Result Q	MRL	Note
129-00-0	Pyrene	9500	1300	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	41-151	4/18/14 22:06	
2-Fluorobiphenyl	63	47-126	4/18/14 22:06	
2-Fluorophenol	55	16-129	4/18/14 22:06	
Nitrobenzene-d5	52	39-136	4/18/14 22:06	
Phenol-d6	59	10-145	4/18/14 22:06	
Terphenyl-d14	85	35-152	4/18/14 22:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Extracted: 4/21/14
 Date Analyzed: 4/21/14 16:47

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\6890G\DATA\042114\AW975.D\

Analysis Lot: 389188
 Extraction Lot: 206542
 Instrument Name: R-GC-58
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	210	U	210	
11104-28-2	Aroclor 1221	430	U	430	
11141-16-5	Aroclor 1232	210	U	210	
53469-21-9	Aroclor 1242	210	U	210	
12672-29-6	Aroclor 1248	210	U	210	
11097-69-1	Aroclor 1254	810		210	
11096-82-5	Aroclor 1260	210	U	210	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	65	22-150	4/21/14 16:47	
Tetrachloro-m-xylene	64	10-126	4/21/14 16:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Date Extracted: 4/21/14
 Date Analyzed: 4/22/14 10:04

Sample Name: VARIAN-WC-03
 Lab Code: R1402720-003

Units: µg/Kg
 Basis: Dry
 Percent Solids: 77.3

Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3541
 Data File Name: I:\ACQUADATA\6890\DATA\042214\AS639.D\

Analysis Lot: 389368
 Extraction Lot: 206625
 Instrument Name: R-GC-59
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
68334-30-5	Diesel Range Organics (DRO) as C10-C28	960000		52000	
	Alkanes				
	C28 - C40 ORO	420000		52000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
o-Terphenyl	78	50-150	4/22/14 10:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402720-MB1

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	20	U	mg/Kg	20	1	4/21/14	4/21/14 15:41	
Sulfide, Reactive	9034 Modified	100	U	mg/Kg	100	1	4/21/14	4/21/01 09:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: Method Blank
 Lab Code: R1402720-MB2

Service Request: R1402720
 Date Collected: NA
 Date Received: NA

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0	U	Percent	1.0	1	NA	4/21/14 11:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: Method Blank
 Lab Code: R1402720-MB2

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Basis: Dry

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	20	U	mg/Kg	20	1	4/21/14	4/21/14 15:47	
Sulfide, Reactive	9034 Modified	100	U	mg/Kg	100	1	4/21/14	4/21/01 09:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402720-MB1

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 12:38	
Barium, Total	6010C	20	U	µg/L	20	1	4/21/14	4/22/14 12:38	
Cadmium, Total	6010C	5.0	U	µg/L	5.0	1	4/21/14	4/22/14 12:38	
Chromium, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 12:38	
Lead, Total	6010C	50	U	µg/L	50	1	4/21/14	4/22/14 12:38	
Mercury, Total	7470A	0.20	U	µg/L	0.20	1	4/17/14	4/17/14 18:06	
Selenium, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 12:38	
Silver, Total	6010C	10	U	µg/L	10	1	4/21/14	4/22/14 12:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA

Sample Name: Method Blank
 Lab Code: R1402720-MB2

Basis: Dry

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	1.0	U	mg/Kg	1.0	1	4/18/14	4/21/14 22:53	
Barium, Total	6010C	2.0	U	mg/Kg	2.0	1	4/18/14	4/23/14 12:56	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	1	4/18/14	4/21/14 22:53	
Chromium, Total	6010C	1.0	U	mg/Kg	1.0	1	4/18/14	4/21/14 22:53	
Lead, Total	6010C	5.0	U	mg/Kg	5.0	1	4/18/14	4/23/14 12:56	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	1	4/17/14	4/17/14 19:20	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	1	4/18/14	4/23/14 12:56	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	1	4/18/14	4/21/14 22:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/18/14 15:43

Sample Name: Method Blank
 Lab Code: RQ1403888-05

Units: µg/Kg
 Basis: Dry

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041814\K8515.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

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	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	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	
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	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	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
123-91-1	1,4-Dioxane	100	U	100	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	
591-78-6	2-Hexanone	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	
67-64-1	Acetone	5.0	U	5.0	
71-43-2	Benzene	5.0	U	5.0	
74-97-5	Bromochloromethane	5.0	U	5.0	
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	
75-15-0	Carbon Disulfide	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	
110-82-7	Cyclohexane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/18/14 15:43

Sample Name: Method Blank
 Lab Code: RQ1403888-05

Units: µg/Kg
 Basis: Dry

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\041814\K8515.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	5.0	U	5.0	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	
108-87-2	Methylcyclohexane	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	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	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	10	U	10	
95-47-6	o-Xylene	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	93	51-136	4/18/14 15:43	
Dibromofluoromethane	93	63-138	4/18/14 15:43	
Toluene-d8	99	66-138	4/18/14 15:43	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/23/14 12:07

Sample Name: Method Blank
 Lab Code: RQ1404137-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa10\data\042314\F7824.D\

Analysis Lot: 389418
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	1.0	U	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	
106-93-4	1,2-Dibromoethane	1.0	U	1.0	
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	
107-06-2	1,2-Dichloroethane	1.0	U	1.0	
78-87-5	1,2-Dichloropropane	1.0	U	1.0	
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	
123-91-1	1,4-Dioxane	40	U	40	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	
591-78-6	2-Hexanone	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	
67-64-1	Acetone	5.0	U	5.0	
71-43-2	Benzene	1.0	U	1.0	
74-97-5	Bromochloromethane	1.0	U	1.0	
75-27-4	Bromodichloromethane	1.0	U	1.0	
75-25-2	Bromoform	1.0	U	1.0	
74-83-9	Bromomethane	1.0	U	1.0	
75-15-0	Carbon Disulfide	1.0	U	1.0	
56-23-5	Carbon Tetrachloride	1.0	U	1.0	
108-90-7	Chlorobenzene	1.0	U	1.0	
75-00-3	Chloroethane	1.0	U	1.0	
67-66-3	Chloroform	1.0	U	1.0	
74-87-3	Chloromethane	1.0	U	1.0	
110-82-7	Cyclohexane	1.0	U	1.0	
124-48-1	Dibromochloromethane	1.0	U	1.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	
75-09-2	Dichloromethane	1.0	U	1.0	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/23/14 12:07

Sample Name: Method Blank
 Lab Code: RQ1404137-01

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\msvoa10\data\042314\F7824.D\

Analysis Lot: 389418
 Instrument Name: R-MS-10
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
100-41-4	Ethylbenzene	1.0	U	1.0	
98-82-8	Isopropylbenzene (Cumene)	1.0	U	1.0	
79-20-9	Methyl Acetate	2.0	U	2.0	
1634-04-4	Methyl tert-Butyl Ether	1.0	U	1.0	
108-87-2	Methylcyclohexane	1.0	U	1.0	
100-42-5	Styrene	1.0	U	1.0	
127-18-4	Tetrachloroethene (PCE)	1.0	U	1.0	
108-88-3	Toluene	1.0	U	1.0	
79-01-6	Trichloroethene (TCE)	1.0	U	1.0	
75-69-4	Trichlorofluoromethane (CFC 11)	1.0	U	1.0	
75-01-4	Vinyl Chloride	1.0	U	1.0	
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
95-47-6	o-Xylene	1.0	U	1.0	
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	4/23/14 12:07	
Dibromofluoromethane	99	89-119	4/23/14 12:07	
Toluene-d8	98	87-121	4/23/14 12:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/18/14 14:06

Sample Name: Method Blank
 Lab Code: RQ1403860-01

Units: µg/L
 Basis: NA

Gasoline Range Organics by GC

Analytical Method: 8015C
 Data File Name: 1004.run

Analysis Lot: 388950
 Instrument Name: R-GC-06
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
8006-61-9	Gasoline Range Organics as C6-C10 Commercial Fuel	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
3-Fluorochlorobenzene	89	73-112	4/18/14 14:06	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/19/14 12:31

Sample Name: Method Blank
 Lab Code: RQ1403879-01

Units: µg/Kg
 Basis: Dry

Gasoline Range Organics by GC

Analytical Method: 8015C
 Data File Name: 1003.run

Analysis Lot: 388999
 Instrument Name: R-GC-06
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
8006-61-9	Gasoline Range Organics as C6-C10 Commercial Fuel	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
3-Fluorochlorobenzene	91	35-142	4/19/14 12:31	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 10:54

Sample Name: Method Blank
 Lab Code: RQ1403732-01

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUDATA\5973D\Data\041814\AT750.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	10	U	10	
58-90-2	2,3,4,6-Tetrachlorophenol	10	U	10	
95-95-4	2,4,5-Trichlorophenol	10	U	10	
88-06-2	2,4,6-Trichlorophenol	10	U	10	
120-83-2	2,4-Dichlorophenol	10	U	10	
105-67-9	2,4-Dimethylphenol	10	U	10	
51-28-5	2,4-Dinitrophenol	50	U	50	
121-14-2	2,4-Dinitrotoluene	10	U	10	
606-20-2	2,6-Dinitrotoluene	10	U	10	
91-58-7	2-Chloronaphthalene	10	U	10	
95-57-8	2-Chlorophenol	10	U	10	
91-57-6	2-Methylnaphthalene	10	U	10	
95-48-7	2-Methylphenol	10	U	10	
88-74-4	2-Nitroaniline	50	U	50	
88-75-5	2-Nitrophenol	10	U	10	
91-94-1	3,3'-Dichlorobenzidine	10	U	10	
	3- and 4-Methylphenol Coelution	10	U	10	
99-09-2	3-Nitroaniline	50	U	50	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	50	
101-55-3	4-Bromophenyl Phenyl Ether	10	U	10	
59-50-7	4-Chloro-3-methylphenol	10	U	10	
106-47-8	4-Chloroaniline	10	U	10	
7005-72-3	4-Chlorophenyl Phenyl Ether	10	U	10	
100-01-6	4-Nitroaniline	50	U	50	
100-02-7	4-Nitrophenol	50	U	50	
83-32-9	Acenaphthene	10	U	10	
208-96-8	Acenaphthylene	10	U	10	
98-86-2	Acetophenone	10	U	10	
120-12-7	Anthracene	10	U	10	
1912-24-9	Atrazine	10	U	10	
56-55-3	Benz(a)anthracene	10	U	10	
100-52-7	Benzaldehyde	50	U	50	
50-32-8	Benzo(a)pyrene	10	U	10	

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 10:54

Sample Name: Method Blank
 Lab Code: RQ1403732-01

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUADATA\5973D\Data\041814\AT750.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	10	U	10	
191-24-2	Benzo(g,h,i)perylene	10	U	10	
207-08-9	Benzo(k)fluoranthene	10	U	10	
92-52-4	Biphenyl	10	U	10	
108-60-1	2,2'-Oxybis(1-chloropropane)	10	U	10	
111-91-1	Bis(2-chloroethoxy)methane	10	U	10	
111-44-4	Bis(2-chloroethyl) Ether	10	U	10	
117-81-7	Bis(2-ethylhexyl) Phthalate	10	U	10	
85-68-7	Butyl Benzyl Phthalate	10	U	10	
105-60-2	Caprolactam	10	U	10	
86-74-8	Carbazole	10	U	10	
218-01-9	Chrysene	10	U	10	
84-74-2	Di-n-butyl Phthalate	10	U	10	
117-84-0	Di-n-octyl Phthalate	10	U	10	
53-70-3	Dibenz(a,h)anthracene	10	U	10	
132-64-9	Dibenzofuran	10	U	10	
84-66-2	Diethyl Phthalate	10	U	10	
131-11-3	Dimethyl Phthalate	10	U	10	
206-44-0	Fluoranthene	10	U	10	
86-73-7	Fluorene	10	U	10	
118-74-1	Hexachlorobenzene	10	U	10	
87-68-3	Hexachlorobutadiene	10	U	10	
77-47-4	Hexachlorocyclopentadiene	10	U	10	
67-72-1	Hexachloroethane	10	U	10	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	10	
78-59-1	Isophorone	10	U	10	
621-64-7	N-Nitrosodi-n-propylamine	10	U	10	
86-30-6	N-Nitrosodiphenylamine	10	U	10	
91-20-3	Naphthalene	10	U	10	
98-95-3	Nitrobenzene	10	U	10	
87-86-5	Pentachlorophenol (PCP)	50	U	50	
85-01-8	Phenanthrene	10	U	10	
108-95-2	Phenol	10	U	10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 10:54

Sample Name: Method Blank
 Lab Code: RQ1403732-01

Units: µg/L
 Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C
 Data File Name: I:\ACQUDATA\5973D\Data\041814\AT750.D\

Analysis Lot: 389006
 Extraction Lot: 206383
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
129-00-0	Pyrene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	126	28-157	4/18/14 10:54	
2-Fluorobiphenyl	91	39-119	4/18/14 10:54	
2-Fluorophenol	48	10-105	4/18/14 10:54	
Nitrobenzene-d5	91	37-117	4/18/14 10:54	
Phenol-d6	37	10-107	4/18/14 10:54	
Terphenyl-d14	122	40-133	4/18/14 10:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:14

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973A\DATA\041814\CY936.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	330	U	330	
58-90-2	2,3,4,6-Tetrachlorophenol	330	U	330	
95-95-4	2,4,5-Trichlorophenol	330	U	330	
88-06-2	2,4,6-Trichlorophenol	330	U	330	
120-83-2	2,4-Dichlorophenol	330	U	330	
105-67-9	2,4-Dimethylphenol	330	U	330	
51-28-5	2,4-Dinitrophenol	1700	U	1700	
121-14-2	2,4-Dinitrotoluene	330	U	330	
606-20-2	2,6-Dinitrotoluene	330	U	330	
91-58-7	2-Chloronaphthalene	330	U	330	
95-57-8	2-Chlorophenol	330	U	330	
91-57-6	2-Methylnaphthalene	330	U	330	
95-48-7	2-Methylphenol	330	U	330	
88-74-4	2-Nitroaniline	1700	U	1700	
88-75-5	2-Nitrophenol	330	U	330	
91-94-1	3,3'-Dichlorobenzidine	330	U	330	
	3- and 4-Methylphenol Coelution	330	U	330	
99-09-2	3-Nitroaniline	1700	U	1700	
534-52-1	4,6-Dinitro-2-methylphenol	1700	U	1700	
101-55-3	4-Bromophenyl Phenyl Ether	330	U	330	
59-50-7	4-Chloro-3-methylphenol	330	U	330	
106-47-8	4-Chloroaniline	330	U	330	
7005-72-3	4-Chlorophenyl Phenyl Ether	330	U	330	
100-01-6	4-Nitroaniline	1700	U	1700	
100-02-7	4-Nitrophenol	1700	U	1700	
83-32-9	Acenaphthene	330	U	330	
208-96-8	Acenaphthylene	330	U	330	
98-86-2	Acetophenone	330	U	330	
120-12-7	Anthracene	330	U	330	
1912-24-9	Atrazine	330	U	330	
56-55-3	Benz(a)anthracene	330	U	330	
100-52-7	Benzaldehyde	1700	U	1700	
50-32-8	Benzo(a)pyrene	330	U	330	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:14

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973A\DATA\041814\CY936.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	330	U	330	
191-24-2	Benzo(g,h,i)perylene	330	U	330	
207-08-9	Benzo(k)fluoranthene	330	U	330	
92-52-4	Biphenyl	330	U	330	
108-60-1	2,2'-Oxybis(1-chloropropane)	330	U	330	
111-91-1	Bis(2-chloroethoxy)methane	330	U	330	
111-44-4	Bis(2-chloroethyl) Ether	330	U	330	
117-81-7	Bis(2-ethylhexyl) Phthalate	330	U	330	
85-68-7	Butyl Benzyl Phthalate	330	U	330	
105-60-2	Caprolactam	330	U	330	
86-74-8	Carbazole	330	U	330	
218-01-9	Chrysene	330	U	330	
84-74-2	Di-n-butyl Phthalate	330	U	330	
117-84-0	Di-n-octyl Phthalate	330	U	330	
53-70-3	Dibenz(a,h)anthracene	330	U	330	
132-64-9	Dibenzofuran	330	U	330	
84-66-2	Diethyl Phthalate	330	U	330	
131-11-3	Dimethyl Phthalate	330	U	330	
206-44-0	Fluoranthene	330	U	330	
86-73-7	Fluorene	330	U	330	
118-74-1	Hexachlorobenzene	330	U	330	
87-68-3	Hexachlorobutadiene	330	U	330	
77-47-4	Hexachlorocyclopentadiene	330	U	330	
67-72-1	Hexachloroethane	330	U	330	
193-39-5	Indeno(1,2,3-cd)pyrene	330	U	330	
78-59-1	Isophorone	330	U	330	
621-64-7	N-Nitrosodi-n-propylamine	330	U	330	
86-30-6	N-Nitrosodiphenylamine	330	U	330	
91-20-3	Naphthalene	330	U	330	
98-95-3	Nitrobenzene	330	U	330	
87-86-5	Pentachlorophenol (PCP)	1700	U	1700	
85-01-8	Phenanthrene	330	U	330	
108-95-2	Phenol	330	U	330	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 13:14

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\5973A\DATA\041814\CY936.D\

Analysis Lot: 389057
 Extraction Lot: 206451
 Instrument Name: R-MS-51
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
129-00-0	Pyrene	330	U	330	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	57	41-151	4/18/14 13:14	
2-Fluorobiphenyl	71	47-126	4/18/14 13:14	
2-Fluorophenol	61	16-129	4/18/14 13:14	
Nitrobenzene-d5	58	39-136	4/18/14 13:14	
Phenol-d6	70	10-145	4/18/14 13:14	
Terphenyl-d14	74	35-152	4/18/14 13:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUADATA\5973D\Data\041814\AT758.D\

Analysis Lot: 389006
 Extraction Lot: 206451
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
95-94-3	1,2,4,5-Tetrachlorobenzene	330	U	330	
58-90-2	2,3,4,6-Tetrachlorophenol	330	U	330	
95-95-4	2,4,5-Trichlorophenol	330	U	330	
88-06-2	2,4,6-Trichlorophenol	330	U	330	
120-83-2	2,4-Dichlorophenol	330	U	330	
105-67-9	2,4-Dimethylphenol	330	U	330	
51-28-5	2,4-Dinitrophenol	1700	U	1700	
121-14-2	2,4-Dinitrotoluene	330	U	330	
606-20-2	2,6-Dinitrotoluene	330	U	330	
91-58-7	2-Chloronaphthalene	330	U	330	
95-57-8	2-Chlorophenol	330	U	330	
91-57-6	2-Methylnaphthalene	330	U	330	
95-48-7	2-Methylphenol	330	U	330	
88-74-4	2-Nitroaniline	1700	U	1700	
88-75-5	2-Nitrophenol	330	U	330	
91-94-1	3,3'-Dichlorobenzidine	330	U	330	
	3- and 4-Methylphenol Coelution	330	U	330	
99-09-2	3-Nitroaniline	1700	U	1700	
534-52-1	4,6-Dinitro-2-methylphenol	1700	U	1700	
101-55-3	4-Bromophenyl Phenyl Ether	330	U	330	
59-50-7	4-Chloro-3-methylphenol	330	U	330	
106-47-8	4-Chloroaniline	330	U	330	
7005-72-3	4-Chlorophenyl Phenyl Ether	330	U	330	
100-01-6	4-Nitroaniline	1700	U	1700	
100-02-7	4-Nitrophenol	1700	U	1700	
83-32-9	Acenaphthene	330	U	330	
208-96-8	Acenaphthylene	330	U	330	
98-86-2	Acetophenone	330	U	330	
120-12-7	Anthracene	330	U	330	
1912-24-9	Atrazine	330	U	330	
56-55-3	Benz(a)anthracene	330	U	330	
100-52-7	Benzaldehyde	1700	U	1700	
50-32-8	Benzo(a)pyrene	330	U	330	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUDATA\5973D\Data\041814\AT758.D\

Analysis Lot: 389006
 Extraction Lot: 206451
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
205-99-2	Benzo(b)fluoranthene	330	U	330	
191-24-2	Benzo(g,h,i)perylene	330	U	330	
207-08-9	Benzo(k)fluoranthene	330	U	330	
92-52-4	Biphenyl	330	U	330	
108-60-1	2,2'-Oxybis(1-chloropropane)	330	U	330	
111-91-1	Bis(2-chloroethoxy)methane	330	U	330	
111-44-4	Bis(2-chloroethyl) Ether	330	U	330	
117-81-7	Bis(2-ethylhexyl) Phthalate	330	U	330	
85-68-7	Butyl Benzyl Phthalate	330	U	330	
105-60-2	Caprolactam	330	U	330	
86-74-8	Carbazole	330	U	330	
218-01-9	Chrysene	330	U	330	
84-74-2	Di-n-butyl Phthalate	330	U	330	
117-84-0	Di-n-octyl Phthalate	330	U	330	
53-70-3	Dibenz(a,h)anthracene	330	U	330	
132-64-9	Dibenzofuran	330	U	330	
84-66-2	Diethyl Phthalate	330	U	330	
131-11-3	Dimethyl Phthalate	330	U	330	
206-44-0	Fluoranthene	330	U	330	
86-73-7	Fluorene	330	U	330	
118-74-1	Hexachlorobenzene	330	U	330	
87-68-3	Hexachlorobutadiene	330	U	330	
77-47-4	Hexachlorocyclopentadiene	330	U	330	
67-72-1	Hexachloroethane	330	U	330	
193-39-5	Indeno(1,2,3-cd)pyrene	330	U	330	
78-59-1	Isophorone	330	U	330	
621-64-7	N-Nitrosodi-n-propylamine	330	U	330	
86-30-6	N-Nitrosodiphenylamine	330	U	330	
91-20-3	Naphthalene	330	U	330	
98-95-3	Nitrobenzene	330	U	330	
87-86-5	Pentachlorophenol (PCP)	1700	U	1700	
85-01-8	Phenanthrene	330	U	330	
108-95-2	Phenol	330	U	330	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403770-01

Units: µg/Kg
 Basis: Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541
 Data File Name: I:\ACQUADATA\5973D\Data\041814\AT758.D\

Analysis Lot: 389006
 Extraction Lot: 206451
 Instrument Name: R-MS-54
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
129-00-0	Pyrene	330	U	330	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	4/18/14 14:22	
2-Fluorobiphenyl	79	47-126	4/18/14 14:22	
2-Fluorophenol	60	16-129	4/18/14 14:22	
Nitrobenzene-d5	68	39-136	4/18/14 14:22	
Phenol-d6	67	10-145	4/18/14 14:22	
Terphenyl-d14	90	35-152	4/18/14 14:22	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/17/14
 Date Analyzed: 4/18/14 16:33

Sample Name: Method Blank
 Lab Code: RQ1403731-01

Units: µg/L
 Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3510C
 Data File Name: I:\ACQU\DATA\GC\EXT4\DATA\041814\NM428.D\

Analysis Lot: 388987
 Extraction Lot: 206382
 Instrument Name: R-GC-56
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	1.0	U	1.0	
11104-28-2	Aroclor 1221	2.0	U	2.0	
11141-16-5	Aroclor 1232	1.0	U	1.0	
53469-21-9	Aroclor 1242	1.0	U	1.0	
12672-29-6	Aroclor 1248	1.0	U	1.0	
11097-69-1	Aroclor 1254	1.0	U	1.0	
11096-82-5	Aroclor 1260	1.0	U	1.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10-124	4/18/14 16:33	
Tetrachloro-m-xylene	77	11-131	4/18/14 16:33	



Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/21/14
 Date Analyzed: 4/21/14 18:28

Sample Name: Method Blank
 Lab Code: RQ1403871-01

Units: µg/Kg
 Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\6890G\DATA\042114\AW979.D\

Analysis Lot: 389188
 Extraction Lot: 206542
 Instrument Name: R-GC-58
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	33	U	33	
11104-28-2	Aroclor 1221	67	U	67	
11141-16-5	Aroclor 1232	33	U	33	
53469-21-9	Aroclor 1242	33	U	33	
12672-29-6	Aroclor 1248	33	U	33	
11097-69-1	Aroclor 1254	33	U	33	
11096-82-5	Aroclor 1260	33	U	33	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	22-150	4/21/14 18:28	
Tetrachloro-m-xylene	77	10-126	4/21/14 18:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/18/14
 Date Analyzed: 4/21/14 09:13

Sample Name: Method Blank
 Lab Code: RQ1403802-01

Units: µg/L
 Basis: NA

Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3510C
 Data File Name: I:\ACQU\DATA\68901\DATA\042114\AS629.D\

Analysis Lot: 389021
 Extraction Lot: 206509
 Instrument Name: R-GC-59
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
68334-30-5	Diesel Range Organics (DRO) as C10-C28	100	U	100	
	Alkanes				
	C28 - C40 ORO	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
o-Terphenyl	87	40-147	4/21/14 09:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Collected: NA
 Date Received: NA
 Date Extracted: 4/21/14
 Date Analyzed: 4/22/14 08:25

Sample Name: Method Blank
 Lab Code: RQ1403890-01

Units: µg/Kg
 Basis: Dry

Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3541
 Data File Name: I:\ACQU\DATA\6890\DATA\042214\AS635.D\

Analysis Lot: 389368
 Extraction Lot: 206625
 Instrument Name: R-GC-59
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
68334-30-5	Diesel Range Organics (DRO) as C10-C28	40000	U	40000	
	Alkanes				
	C28 - C40 ORO	40000	U	40000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
o-Terphenyl	82	50-150	4/22/14 08:25	

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/21/01 -
 4/21/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/Kg
 Basis: Dry

Analyte Name	Method	Result	Lab Control Sample R1402720-LCS1		% Rec Limits
			Spike Amount	% Rec	
Cyanide, Reactive	9014	5.61	203	3	1 - 100
Sulfide, Reactive	9034 Modified	119	200	58	21 - 118

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/21/01 -
 4/21/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: deg C
 Basis: NA

Lab Control Sample
 R1402720-LCS2

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Flash Point	1010A	27.6	27.2		24.5 - 29.9

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/21/01 -
 4/21/14

Lab Control Sample Summary
 General Chemistry Parameters

Units: mg/Kg
 Basis: NA

Lab Control Sample
 R1402720-LCS2

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Reactive	9014	4.29	203	2	1 - 100
Sulfide, Reactive	9034 Modified	113	200	55	34 - 126

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/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/17/14 -
 4/23/14

Lab Control Sample Summary
 Inorganic Parameters

Units: mg/Kg
 Basis: Dry

Lab Control Sample
 R1402720-LCS1

Analyte Name	Method	Result	Spike		% Rec Limits
			Amount	% Rec	
Arsenic, Total	6010C	82.1	94.5	87	82.3 - 117
Barium, Total	6010C	167	167	100	83.8 - 115
Cadmium, Total	6010C	54.7	60.5	90	83.1 - 116
Chromium, Total	6010C	69.1	70.4	98	81.8 - 118
Lead, Total	6010C	86.4	91.8	94	82.2 - 117
Mercury, Total	7471B	3.69	3.73	99	71.6 - 128
Selenium, Total	6010C	74.7	86.4	86	80.1 - 120
Silver, Total	6010C	32.2	34.4	94	66.3 - 134

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/17/14 -
 4/22/14

Lab Control Sample Summary
 Inorganic Parameters

Units: µg/L
 Basis: NA

Lab Control Sample
 R1402720-LCS2

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	6010C	33.8	40	84	80 - 120
Barium, Total	6010C	1990	2000	100	80 - 120
Cadmium, Total	6010C	47.7	50.0	95	80 - 120
Chromium, Total	6010C	200	200	100	80 - 120
Lead, Total	6010C	490	500	98	80 - 120
Mercury, Total	7470A	1.00	1.00	100	80 - 120
Selenium, Total	6010C	989	1010	98	80 - 120
Silver, Total	6010C	48.2	50	96	80 - 120

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
 Basis: Dry

Analysis Lot: 388901

Analyte Name	Lab Control Sample RQ1403888-03			Duplicate Lab Control Sample RQ1403888-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.2	20.0	91	17.7	20.0	88	65 - 127	3	30
1,1,2,2-Tetrachloroethane	19.7	20.0	99	19.2	20.0	96	71 - 134	3	30
1,1,2-Trichloroethane	19.0	20.0	95	18.8	20.0	94	76 - 123	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	30.3	20.0	151 *	28.0	20.0	140 *	59 - 127	8	30
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	18.8	20.0	94	75 - 126	1	30
1,1-Dichloroethene (1,1-DCE)	23.6	20.0	118	22.9	20.0	114	69 - 135	3	30
1,2,3-Trichlorobenzene	20.5	20.0	103	19.4	20.0	97	70 - 139	6	30
1,2,4-Trichlorobenzene	22.5	20.0	113	20.9	20.0	105	68 - 136	7	30
1,2-Dibromo-3-chloropropane (DBCP)	17.8	20.0	89	18.2	20.0	91	56 - 138	2	30
1,2-Dibromoethane	19.6	20.0	98	19.6	20.0	98	73 - 125	<1	30
1,2-Dichlorobenzene	21.2	20.0	106	20.6	20.0	103	77 - 125	3	30
1,2-Dichloroethane	16.7	20.0	84	16.8	20.0	84	69 - 121	<1	30
1,2-Dichloropropane	20.4	20.0	102	20.2	20.0	101	79 - 124	<1	30
1,3-Dichlorobenzene	22.2	20.0	111	21.2	20.0	106	74 - 130	5	30
1,4-Dichlorobenzene	21.8	20.0	109	21.0	20.0	105	75 - 129	4	30
1,4-Dioxane	402	400	101	413	400	103	59 - 152	2	30
2-Butanone (MEK)	17.0	20.0	85	17.3	20.0	86	63 - 135	1	30
2-Hexanone	17.1	20.0	86	17.4	20.0	87	59 - 144	1	30
4-Methyl-2-pentanone	17.3	20.0	86	17.8	20.0	89	65 - 138	3	30
Acetone	19.2	20.0	96	18.3	20.0	91	50 - 151	5	30
Benzene	20.6	20.0	103	20.2	20.0	101	75 - 124	2	30
Bromochloromethane	20.6	20.0	103	21.1	20.0	105	79 - 125	2	30
Bromodichloromethane	18.7	20.0	93	18.6	20.0	93	77 - 127	<1	30
Bromoform	17.2	20.0	86	18.8	20.0	94	61 - 144	9	30
Bromomethane	20.0	20.0	100	18.5	20.0	93	52 - 140	7	30
Carbon Disulfide	19.4	20.0	97	18.3	20.0	91	66 - 135	6	30
Carbon Tetrachloride	18.9	20.0	94	18.5	20.0	92	58 - 125	2	30
Chlorobenzene	20.8	20.0	104	20.1	20.0	100	77 - 124	4	30
Chloroethane	21.2	20.0	106	20.7	20.0	103	56 - 138	3	30
Chloroform	18.0	20.0	90	17.7	20.0	88	75 - 126	2	30
Chloromethane	21.4	20.0	107	20.7	20.0	103	52 - 145	4	30
Cyclohexane	17.5	20.0	87	16.8	20.0	84	54 - 135	4	30
Dibromochloromethane	18.9	20.0	94	18.7	20.0	94	69 - 133	<1	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
 Basis: Dry

Analysis Lot: 388901

Analyte Name	Lab Control Sample RQ1403888-03			Duplicate Lab Control Sample RQ1403888-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dichlorodifluoromethane (CFC 12)	19.9	20.0	100	19.2	20.0	96	46 - 146	4	30
Dichloromethane	20.9	20.0	104	20.7	20.0	104	75 - 122	<1	30
Ethylbenzene	20.5	20.0	102	20.1	20.0	100	70 - 130	2	30
Isopropylbenzene (Cumene)	21.4	20.0	107	21.0	20.0	105	72 - 145	2	30
Methyl Acetate	18.0	20.0	90	18.6	20.0	93	61 - 144	3	30
Methyl tert-Butyl Ether	18.7	20.0	93	18.8	20.0	94	69 - 124	1	30
Methylcyclohexane	17.9	20.0	90	17.2	20.0	86	57 - 131	5	30
Styrene	21.0	20.0	105	20.6	20.0	103	71 - 127	2	30
Tetrachloroethene (PCE)	22.7	20.0	113	21.8	20.0	109	67 - 133	4	30
Toluene	20.3	20.0	101	19.7	20.0	99	72 - 127	2	30
Trichloroethene (TCE)	20.1	20.0	100	19.9	20.0	100	72 - 128	<1	30
Trichlorofluoromethane (CFC 11)	18.2	20.0	91	18.0	20.0	90	62 - 138	1	30
Vinyl Chloride	21.4	20.0	107	20.9	20.0	104	58 - 152	3	30
cis-1,2-Dichloroethene	20.9	20.0	105	20.3	20.0	102	75 - 127	3	30
cis-1,3-Dichloropropene	18.9	20.0	95	18.3	20.0	91	73 - 120	4	30
m,p-Xylenes	43.0	40.0	107	41.9	40.0	105	70 - 131	2	30
o-Xylene	20.9	20.0	104	21.3	20.0	106	71 - 127	2	30
trans-1,2-Dichloroethene	21.2	20.0	106	20.6	20.0	103	69 - 125	3	30
trans-1,3-Dichloropropene	17.8	20.0	89	17.2	20.0	86	68 - 120	3	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/23/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389418

Lab Control Sample
 RQ1404137-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	17.1	20.0	86	67 - 121
1,1,2,2-Tetrachloroethane	17.8	20.0	89	72 - 124
1,1,2-Trichloroethane	17.9	20.0	90	81 - 117
1,1,2-Trichloro-1,2,2-trifluoroethane	18.1	20.0	90	60 - 123
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	76 - 128
1,1-Dichloroethene (1,1-DCE)	20.5	20.0	102	74 - 135
1,2,3-Trichlorobenzene	18.2	20.0	91	67 - 135
1,2,4-Trichlorobenzene	18.7	20.0	94	70 - 130
1,2-Dibromo-3-chloropropane (DBCP)	16.7	20.0	83	64 - 131
1,2-Dibromoethane	18.4	20.0	92	81 - 118
1,2-Dichlorobenzene	18.5	20.0	92	80 - 119
1,2-Dichloroethane	16.8	20.0	84	72 - 130
1,2-Dichloropropane	19.5	20.0	97	80 - 119
1,3-Dichlorobenzene	18.0	20.0	90	79 - 121
1,4-Dichlorobenzene	17.5	20.0	87	79 - 119
1,4-Dioxane	421	400	105	51 - 180
2-Butanone (MEK)	18.0	20.0	90	60 - 133
2-Hexanone	17.1	20.0	86	61 - 131
4-Methyl-2-pentanone	18.0	20.0	90	61 - 132
Acetone	14.3	20.0	72	61 - 138
Benzene	18.3	20.0	92	76 - 118
Bromochloromethane	19.2	20.0	96	83 - 123
Bromodichloromethane	17.9	20.0	89	79 - 123
Bromoform	18.1	20.0	90	72 - 128
Bromomethane	21.9	20.0	110	46 - 157
Carbon Disulfide	22.9	20.0	114	61 - 144
Carbon Tetrachloride	17.1	20.0	85	64 - 129
Chlorobenzene	18.0	20.0	90	80 - 121
Chloroethane	16.8	20.0	84	69 - 128
Chloroform	17.8	20.0	89	75 - 123
Chloromethane	20.1	20.0	101	55 - 139
Cyclohexane	19.5	20.0	97	55 - 132
Dibromochloromethane	18.4	20.0	92	78 - 127

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/23/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389418

Lab Control Sample
 RQ1404137-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	18.6	20.0	93	45 - 147
Dichloromethane	19.6	20.0	98	73 - 122
Ethylbenzene	18.1	20.0	91	75 - 123
Isopropylbenzene (Cumene)	18.2	20.0	91	75 - 139
Methyl Acetate	20.4	20.0	102	65 - 131
Methyl tert-Butyl Ether	18.9	20.0	95	75 - 116
Methylcyclohexane	19.9	20.0	100	59 - 127
Styrene	18.9	20.0	95	80 - 121
Tetrachloroethene (PCE)	18.0	20.0	90	71 - 127
Toluene	17.9	20.0	89	77 - 120
Trichloroethene (TCE)	17.6	20.0	88	75 - 122
Trichlorofluoromethane (CFC 11)	16.6	20.0	83	64 - 134
Vinyl Chloride	19.1	20.0	96	68 - 139
cis-1,2-Dichloroethene	18.1	20.0	91	77 - 123
cis-1,3-Dichloropropene	18.0	20.0	90	77 - 125
m,p-Xylenes	37.8	40.0	94	77 - 124
o-Xylene	18.7	20.0	93	77 - 131
trans-1,2-Dichloroethene	18.1	20.0	90	72 - 120
trans-1,3-Dichloropropene	17.7	20.0	89	69 - 127

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Gasoline Range Organics by GC

Analytical Method: 8015C

Units: µg/L
 Basis: NA

Analysis Lot: 388950

Analyte Name	Lab Control Sample RQ1403860-02			Duplicate Lab Control Sample RQ1403860-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Gasoline Range Organics as C6-C10 Commercial	405	499	81	387	499	78	52 - 140	5	30

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/150151
Sample Matrix: Soil

Service Request: R1402720
Date Analyzed: 4/19/14

Lab Control Sample Summary
Gasoline Range Organics by GC

Analytical Method: 8015C

Units: µg/Kg
Basis: Dry

Analysis Lot: 388999

Lab Control Sample
RQ1403879-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Gasoline Range Organics as C6-C10 Commercial	468	499	94	70 - 128

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541

Units: µg/Kg
 Basis: Dry

Extraction Lot: 206451

Analyte Name	Lab Control Sample RQ1403770-02			Duplicate Lab Control Sample RQ1403770-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,2,4,5-Tetrachlorobenzene	2720	3330	82	2470	3330	74	31 - 127	10	30
2,3,4,6-Tetrachlorophenol	2780	3330	83	2540	3330	76	37 - 156	9	30
2,4,5-Trichlorophenol	2630	3330	79	2440	3330	73	47 - 131	8	30
2,4,6-Trichlorophenol	2620	3330	79	2470	3330	74	46 - 136	6	30
2,4-Dichlorophenol	2460	3330	74	2390	3330	72	39 - 135	3	30
2,4-Dimethylphenol	2220	3330	67	2090	3330	63	31 - 135	6	30
2,4-Dinitrophenol	630	3330	19	622	3330	19	10 - 148	1	30
2,4-Dinitrotoluene	2920	3330	88	2520	3330	76	45 - 152	15	30
2,6-Dinitrotoluene	2760	3330	83	2380	3330	72	50 - 146	15	30
2-Chloronaphthalene	2750	3330	83	2520	3330	76	41 - 124	9	30
2-Chlorophenol	2560	3330	77	2470	3330	74	39 - 123	3	30
2-Methylnaphthalene	2370	3330	71	2240	3330	67	33 - 125	6	30
2-Methylphenol	2540	3330	76	2240	3330	67	38 - 123	12	30
2-Nitroaniline	3080	3330	92	2790	3330	84	44 - 139	10	30
2-Nitrophenol	3020	3330	91	2910	3330	87	47 - 128	4	30
3,3'-Dichlorobenzidine	2360	3330	71	2300	3330	69	19 - 111	3	30
3- and 4-Methylphenol Coelution	4900	6670	73	4250	6670	64	42 - 114	14	30
3-Nitroaniline	2660	3330	80	2450	3330	73	43 - 106	9	30
4,6-Dinitro-2-methylphenol	1270	3330	38	1100	3330	33	29 - 141	15	30
4-Bromophenyl Phenyl Ether	2680	3330	80	2330	3330	70	45 - 137	14	30
4-Chloro-3-methylphenol	2410	3330	72	2350	3330	70	42 - 140	3	30
4-Chloroaniline	2120	3330	63	2070	3330	62	34 - 101	2	30
4-Chlorophenyl Phenyl Ether	2780	3330	83	2530	3330	76	47 - 132	10	30
4-Nitroaniline	2870	3330	86	2520	3330	75	34 - 131	13	30
4-Nitrophenol	2410	3330	72	2200	3330	66	10 - 130	9	30
Acenaphthene	2600	3330	78	2440	3330	73	43 - 133	7	30
Acenaphthylene	2700	3330	81	2550	3330	76	45 - 133	6	30
Acetophenone	2550	3330	76	2170	3330	65	44 - 114	16	30
Anthracene	2650	3330	79	2480	3330	74	48 - 129	7	30
Atrazine	3840	3330	115	3630	3330	109	39 - 151	6	30
Benz(a)anthracene	2460	3330	74	2390	3330	72	48 - 129	3	30
Benzaldehyde	9160	3330	275 *	8590	3330	258 *	62 - 200	6	30
Benzo(a)pyrene	2530	3330	76	2410	3330	72	45 - 125	5	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541

Units: µg/Kg
 Basis: Dry

Extraction Lot: 206451

Analyte Name	Lab Control Sample RQ1403770-02			Duplicate Lab Control Sample RQ1403770-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzo(b)fluoranthene	2620	3330	79	2390	3330	72	45 - 136	9	30
Benzo(g,h,i)perylene	2760	3330	83	2580	3330	77	51 - 131	7	30
Benzo(k)fluoranthene	2380	3330	72	2310	3330	69	43 - 131	3	30
Biphenyl	2760	3330	83	2600	3330	78	35 - 131	6	30
2,2'-Oxybis(1-chloropropane)	2830	3330	85	2410	3330	72	38 - 138	16	30
Bis(2-chloroethoxy)methane	2550	3330	77	2430	3330	73	48 - 123	5	30
Bis(2-chloroethyl) Ether	2410	3330	72	2090	3330	63	44 - 111	14	30
Bis(2-ethylhexyl) Phthalate	2810	3330	84	2630	3330	79	50 - 142	6	30
Butyl Benzyl Phthalate	2480	3330	74	2360	3330	71	46 - 137	5	30
Caprolactam	2640	3330	79	2470	3330	74	42 - 112	7	30
Carbazole	2670	3330	80	2550	3330	76	40 - 140	4	30
Chrysene	2560	3330	77	2360	3330	71	48 - 128	8	30
Di-n-butyl Phthalate	3280	3330	98	2760	3330	83	36 - 164	17	30
Di-n-octyl Phthalate	2870	3330	86	2690	3330	81	48 - 137	7	30
Dibenz(a,h)anthracene	2680	3330	80	2550	3330	77	50 - 135	5	30
Dibenzofuran	2590	3330	78	2380	3330	71	45 - 126	9	30
Diethyl Phthalate	2880	3330	86	2580	3330	77	46 - 141	11	30
Dimethyl Phthalate	2830	3330	85	2520	3330	75	48 - 139	12	30
Fluoranthene	3160	3330	95	2730	3330	82	46 - 138	15	30
Fluorene	2780	3330	83	2420	3330	73	46 - 134	14	30
Hexachlorobenzene	2620	3330	79	2380	3330	71	41 - 138	10	30
Hexachlorobutadiene	2430	3330	73	2280	3330	68	10 - 142	7	30
Hexachlorocyclopentadiene	2710	3330	81	2420	3330	73	10 - 133	11	30
Hexachloroethane	2240	3330	67	1850	3330	55	10 - 129	19	30
Indeno(1,2,3-cd)pyrene	2650	3330	80	2550	3330	76	48 - 128	4	30
Isophorone	2400	3330	72	2280	3330	68	44 - 122	5	30
N-Nitrosodi-n-propylamine	2460	3330	74	2140	3330	64	44 - 126	14	30
N-Nitrosodiphenylamine	2620	3330	79	2550	3330	77	43 - 156	3	30
Naphthalene	2530	3330	76	2310	3330	69	31 - 123	9	30
Nitrobenzene	2410	3330	72	2240	3330	67	35 - 134	7	30
Pentachlorophenol (PCP)	1820	3330	55	1650	3330	49	17 - 150	10	30
Phenanthrene	2700	3330	81	2500	3330	75	45 - 140	7	30
Phenol	2620	3330	79	2380	3330	71	10 - 144	9	30

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/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3541

Units: µg/Kg
 Basis: Dry

Extraction Lot: 206451

Analyte Name	Lab Control Sample RQ1403770-02			Duplicate Lab Control Sample RQ1403770-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Pyrene	2740	3330	82	2530	3330	76	45 - 132	8	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C

Units: µg/L
 Basis: NA

Extraction Lot: 206383

Analyte Name	Lab Control Sample RQ1403732-02			Duplicate Lab Control Sample RQ1403732-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,2,4,5-Tetrachlorobenzene	89.5	101	89	88.1	101	87	31 - 100	2	30
2,3,4,6-Tetrachlorophenol	109	100	109	110	100	110	87 - 145	<1	30
2,4,5-Trichlorophenol	109	100	109	108	100	108	62 - 117	<1	30
2,4,6-Trichlorophenol	108	100	108	107	100	107	62 - 115	<1	30
2,4-Dichlorophenol	101	100	101	99.9	100	100	62 - 109	<1	30
2,4-Dimethylphenol	97.9	100	98	96.4	100	96	28 - 100	2	30
2,4-Dinitrophenol	181	100	181 *	186	100	186 *	40 - 156	3	30
2,4-Dinitrotoluene	126	100	126 *	126	100	126 *	69 - 122	<1	30
2,6-Dinitrotoluene	136	100	136 *	132	100	132 *	48 - 125	3	30
2-Chloronaphthalene	95.5	100	96	94.5	100	94	47 - 98	2	30
2-Chlorophenol	92.3	100	92	92.1	100	92	42 - 112	<1	30
2-Methylnaphthalene	85.9	100	86	86.4	100	86	34 - 102	<1	30
2-Methylphenol	86.9	100	87	84.7	100	85	51 - 95	2	30
2-Nitroaniline	111	100	111	112	100	112	60 - 119	<1	30
2-Nitrophenol	121	100	121 *	123	100	123 *	60 - 113	2	30
3,3'-Dichlorobenzidine	82.0	100	82	86.4	100	86	44 - 114	5	30
3- and 4-Methylphenol Coelution	165	200	83	160	200	80	49 - 89	4	30
3-Nitroaniline	91.1	100	91	93.3	100	93	49 - 110	2	30
4,6-Dinitro-2-methylphenol	172	100	172 *	172	100	172 *	65 - 141	<1	30
4-Bromophenyl Phenyl Ether	95.9	100	96	96.0	100	96	63 - 124	<1	30
4-Chloro-3-methylphenol	99.7	100	100	101	100	101	42 - 124	<1	30
4-Chloroaniline	79.8	100	80	81.6	100	82	40 - 111	2	30
4-Chlorophenyl Phenyl Ether	102	100	102	100	100	100	59 - 112	2	30
4-Nitroaniline	110	100	110	111	100	111	61 - 122	<1	30
4-Nitrophenol	63.6	100	64	62.6	100	63	10 - 126	2	30
Acenaphthene	98.3	100	98	98.1	100	98	54 - 125	<1	30
Acenaphthylene	102	100	102	102	100	102	69 - 111	<1	30
Acetophenone	99.8	100	100	99.6	100	100	42 - 126	<1	30
Anthracene	101	100	101	102	100	102	55 - 116	<1	30
Atrazine	150	100	150	151	100	151	10 - 160	<1	30
Benz(a)anthracene	100	100	100	99.9	100	100	66 - 110	<1	30
Benzaldehyde	348	100	348 *	352	100	352 *	46 - 200	1	30
Benzo(a)pyrene	102	100	102	103	100	103	44 - 114	<1	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C

Units: µg/L
 Basis: NA

Extraction Lot: 206383

Analyte Name	Lab Control Sample RQ1403732-02			Duplicate Lab Control Sample RQ1403732-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzo(b)fluoranthene	101	100	101	101	100	101	64 - 122	<1	30
Benzo(g,h,i)perylene	105	100	105	107	100	107	60 - 127	2	30
Benzo(k)fluoranthene	97.1	100	97	96.2	100	96	49 - 133	1	30
Biphenyl	98.5	100	98	98.0	100	98	30 - 126	<1	30
2,2'-Oxybis(1-chloropropane)	107	100	107	105	100	105	44 - 112	2	30
Bis(2-chloroethoxy)methane	98.3	100	98	96.7	100	97	53 - 142	1	30
Bis(2-chloroethyl) Ether	92.6	100	93	91.6	100	92	56 - 106	1	30
Bis(2-ethylhexyl) Phthalate	101	100	101	99.9	100	100	62 - 124	<1	30
Butyl Benzyl Phthalate	94.5	100	94	94.7	100	95	41 - 148	1	30
Caprolactam	33.3	100	33	33.6	100	34	10 - 41	3	30
Carbazole	106	100	106	107	100	107	66 - 117	<1	30
Chrysene	101	100	101	102	100	102	57 - 118	<1	30
Di-n-butyl Phthalate	103	100	103	102	100	102	57 - 139	<1	30
Di-n-octyl Phthalate	97.9	100	98	98.7	100	99	77 - 120	1	30
Dibenz(a,h)anthracene	104	100	104	106	100	106	58 - 132	2	30
Dibenzofuran	96.1	100	96	96.6	100	97	58 - 105	1	30
Diethyl Phthalate	96.5	100	96	93.8	100	94	65 - 122	2	30
Dimethyl Phthalate	97.0	100	97	96.1	100	96	69 - 115	1	30
Fluoranthene	108	100	108	108	100	108	62 - 123	<1	30
Fluorene	98.6	100	99	96.5	100	96	60 - 112	3	30
Hexachlorobenzene	101	100	101	104	100	104	76 - 119	3	30
Hexachlorobutadiene	73.5	100	73	71.7	100	72	16 - 95	1	30
Hexachlorocyclopentadiene	98.8	100	99	97.0	100	97	10 - 99	2	30
Hexachloroethane	66.4	100	66	66.7	100	67	15 - 92	2	30
Indeno(1,2,3-cd)pyrene	99.5	100	100	103	100	103	64 - 126	3	30
Isophorone	99.1	100	99	99.2	100	99	61 - 128	<1	30
N-Nitrosodi-n-propylamine	95.0	100	95	94.5	100	95	51 - 119	<1	30
N-Nitrosodiphenylamine	99.7	100	100	102	100	102	45 - 123	2	30
Naphthalene	82.9	100	83	82.4	100	82	36 - 95	1	30
Nitrobenzene	104	100	104	104	100	104	51 - 113	<1	30
Pentachlorophenol (PCP)	114	100	114	114	100	114	56 - 146	<1	30
Phenanthrene	103	100	103	105	100	105	58 - 118	2	30
Phenol	46.6	100	47	44.6	100	45	10 - 113	4	30

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/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
 Prep Method: EPA 3510C

Units: µg/L
 Basis: NA

Extraction Lot: 206383

Analyte Name	Lab Control Sample RQ1403732-02			Duplicate Lab Control Sample RQ1403732-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Pyrene	112	100	112	111	100	111	67 - 118	<1	30

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/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3510C

Units: µg/L
 Basis: NA

Extraction Lot: 206382

Analyte Name	Lab Control Sample RQ1403731-02			Duplicate Lab Control Sample RQ1403731-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1016	4.14	5.00	83	4.20	5.00	84	40 - 140	1	30
Aroclor 1260	4.60	5.00	92	4.68	5.00	94	45 - 134	2	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
 Prep Method: EPA 3541

Units: µg/Kg
 Basis: Dry

Extraction Lot: 206542

Analyte Name	Lab Control Sample RQ1403871-02			Duplicate Lab Control Sample RQ1403871-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Aroclor 1260	128	167	77	158	167	95	58 - 129	20	30

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/150151
 Sample Matrix: Water

Service Request: R1402720
 Date Analyzed: 4/21/14

Lab Control Sample Summary
 Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3510C

Units: µg/L
 Basis: NA

Extraction Lot: 206509

Analyte Name	Lab Control Sample RQ1403802-02			Duplicate Lab Control Sample RQ1403802-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Diesel Range Organics (DRO) as C10-C28	362	503	72	402	503	80	11 - 126	11	30

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.

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402720
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Diesel and Residual Range Organics by GC

Analytical Method: 8015C
 Prep Method: EPA 3541

Units: µg/Kg
 Basis: Dry

Extraction Lot: 206625

Analyte Name	Lab Control Sample RQ1403890-02			Duplicate Lab Control Sample RQ1403890-03			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Diesel Range Organics (DRO) as C10-C28	179000	251000	71	189000	251000	75	46 - 124	5	30

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.



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

14878

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 <i>Vacian</i>		Project Number <i>150151</i>		ANALYSIS REQUESTED (include Method Number and Container Preservative)										REMARKS/ ALTERNATE DESCRIPTION	PRESERVATIVE KEY																		
Project Manager <i>Ray Casadevall</i>		Report CC		PRESERVATIVE		GC VOAs		PESTICIDES		PCBs		METALS TOTAL				METALS DISSOLVED		TSP Metals		Weather		GIS Data		Freshprint									
Company/Address <i>CBIZ 150 Regall Dr. Carson MA, 02021</i>		Phone # <i>617-589-6102</i>		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GCMS VOAs • 8270 • 825 • 8021 • 601/802		PESTICIDES • 8081 • 808		PCBs • 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		TSP Metals		Weather		GIS Data		Freshprint			
Client Sample ID <i>Vacian-1601</i>		FOR OFFICE USE ONLY LAB ID		DATE <i>4/11/14</i>		SAMPLING TIME <i>13:30</i>		MATRIX <i>W</i>		NUMBER OF CONTAINERS <i>19</i>		GCMS VOAs • 8270 • 825 • 8021 • 601/802		PESTICIDES • 8081 • 808		PCBs • 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		TSP Metals		Weather		GIS Data		Freshprint		Remarks/Alternate Description <i>PH</i>		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. H2SO4 8. Other	
Client Sample ID <i>Vacian-1602</i>		FOR OFFICE USE ONLY LAB ID		DATE <i>4/11/14</i>		SAMPLING TIME <i>14:00</i>		MATRIX <i>S</i>		NUMBER OF CONTAINERS <i>7</i>		GCMS VOAs • 8270 • 825 • 8021 • 601/802		PESTICIDES • 8081 • 808		PCBs • 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		TSP Metals		Weather		GIS Data		Freshprint		Remarks/Alternate Description		Preservative Key	
Client Sample ID <i>Vacian-1603</i>		FOR OFFICE USE ONLY LAB ID		DATE <i>4/11/14</i>		SAMPLING TIME <i>14:15</i>		MATRIX <i>S</i>		NUMBER OF CONTAINERS <i>7</i>		GCMS VOAs • 8270 • 825 • 8021 • 601/802		PESTICIDES • 8081 • 808		PCBs • 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		TSP Metals		Weather		GIS Data		Freshprint		Remarks/Alternate Description		Preservative Key	

SPECIAL INSTRUCTIONS/COMMENTS
 Metals
Ray C. for further information.

STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY	
Signature <i>Ray Casadevall</i>		Signature <i>[Signature]</i>		Signature	
Printed Name <i>Ray Casadevall</i>		Printed Name <i>Gregory O. Emerson</i>		Printed Name	
Firm <i>CBIZ</i>		Firm <i>ALS</i>		Firm	
Date/Time <i>4/11/14 16:30</i>		Date/Time <i>4/16/14 09:20</i>		Date/Time	

TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
RUSH (SURCHARGES APPLY)	I. Results Only	PO #
1 day - 2 day - 3 day	X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)	BILL TO: <i>CBIZ</i>
4 day - 5 day	III. Results + QC and Calibration Summaries	
REQUESTED REPORT DATE	IV. Data Validation Report with Raw Data	
	Edits Yes No	
	RELINQUISHED BY	RECEIVED BY

R1402720
 CB&I Environmental & Infrastructure
 Varian Beverly
 7 Y



Cooler Receipt and Preservation Check Form

Project/Client CBTI Folder Number R14-2720

Cooler received on 4-16-14 by: ME COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROC, CLIENT
- Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
- Temperature of cooler(s) upon receipt: 6.0° 4.9°

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N
If No, Explain Below Date/Time Temperatures Taken: 4-16-14 @ 09:38

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 R-002 by ME on 4-16-14 at 09:45
5035 samples placed in storage location by _____ on _____ at _____

PC Secondary Review: JMS 4/16/14

Cooler Breakdown: Date: 4/16/14 Time: 1629 by: dlm

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

Explain any discrepancies:

pH	Reagent	Lot Received		Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO						
≥12	NaOH								No = Samples were preserved at lab as listed
≤2	HNO ₃	<u>v</u>	<u>B082613573</u>	<u>4/15</u>					
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522				If present, contact PM to add ascorbic acid Or sodium sulfite (522)				PM OK to Adjust:
	Na ₂ S ₂ O ₃	-	-						
	Zn Aceta	-	-						
	HCl	*	*	<u>4/17/10</u>	<u>3/5</u>				

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

Bottle lot numbers: 112612-2W, 102113-1BME, 021014-1BLT, 3-244-007, 4-007-003, 031714-1BSUS, 122313-1BMM

Other Comments: * Bldg 3 Line 8: 1 of 3 vials has significant headspace.
ME 4-16-14

PC Secondary Review: JMS 4/23/14 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



April 25, 2014

Service Request No: R1402721

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

Laboratory Results for: Varian Beverly/150151

Dear Mr. Cadorette:

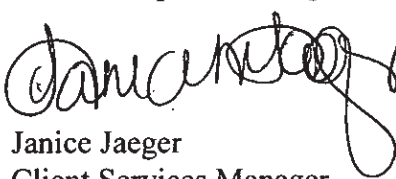
Enclosed are the results of the sample(s) submitted to our laboratory on April 16, 2014. For your reference, these analyses have been assigned our service request number **R1402721**.

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

Page 1 of 14

CC: Pernilla Haley

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402721

<u>Lab ID</u>	<u>Client ID</u>
R1402721-001	VARIAN-WC01
R1402721-002	VARIAN-WC02
R1402721-003	VARIAN-WC03

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.

00002

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>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.</p> <p>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/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>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.</p> <p>* 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.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>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).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

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.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402721
 Date Collected: 4/11/14 1330
 Date Received: 4/16/14
 Pre-Prep Date: 4/18/14

Sample Name: VARIAN-WC01
 Lab Code: R1402721-001

Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50 U	mg/L	0.50	1	4/21/14	4/22/14 15:27	
Barium	6010C	1.0 U	mg/L	1.0	1	4/21/14	4/22/14 15:27	
Cadmium	6010C	0.10 U	mg/L	0.10	1	4/21/14	4/22/14 15:27	
Chromium	6010C	0.10 U	mg/L	0.10	1	4/21/14	4/22/14 15:27	
Lead	6010C	0.10 U	mg/L	0.10	1	4/21/14	4/22/14 15:27	
Mercury	7470A	0.00020 U	mg/L	0.00020	1	4/22/14	4/22/14 16:14	
Selenium	6010C	0.50 U	mg/L	0.50	1	4/21/14	4/23/14 08:52	
Silver	6010C	0.10 U	mg/L	0.10	1	4/21/14	4/22/14 15:27	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402721
 Date Collected: 4/11/14 1400
 Date Received: 4/16/14
 Pre-Prep Date: 4/17/14

Sample Name: VARIAN-WC02
 Lab Code: R1402721-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 16:19	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 16:19	
Cadmium	6010C	0.84		mg/L	0.10	1	4/21/14	4/22/14 16:19	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 16:19	
Lead	6010C	0.42		mg/L	0.10	1	4/21/14	4/22/14 16:19	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	4/22/14	4/22/14 16:16	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 09:44	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 16:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402721
 Date Collected: 4/11/14 1415
 Date Received: 4/16/14
 Pre-Prep Date: 4/17/14

Sample Name: VARIAN-WC03
 Lab Code: R1402721-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 16:26	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 16:26	
Cadmium	6010C	0.36		mg/L	0.10	1	4/21/14	4/22/14 16:26	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 16:26	
Lead	6010C	21.3		mg/L	1.0	10	4/21/14	4/23/14 10:02	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	4/22/14	4/22/14 16:21	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 09:53	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 16:26	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402721
 Date Collected: NA
 Date Received: NA
 Pre-Prep Date: 4/17/14

Sample Name: Method Blank
 Lab Code: R1402721-MB1

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 15:12	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 15:12	
Cadmium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:12	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:12	
Lead	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:12	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	4/22/14	4/22/14 16:11	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 08:36	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water

Service Request: R1402721
 Date Collected: NA
 Date Received: NA
 Pre-Prep Date: 4/18/14

Sample Name: Method Blank
 Lab Code: R1402721-MB2

Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 15:19	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 15:19	
Cadmium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:19	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:19	
Lead	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:19	
Mercury	7470A	0.00020	U	mg/L	0.00020	1	4/22/14	4/22/14 16:13	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 08:44	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 15:19	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Water
 Sample Name: Method Blank
 Lab Code: R1402721-MB3

Service Request: R1402721
 Date Collected: NA
 Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 14:50	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 14:50	
Cadmium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Lead	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Mercury	7470A	0.00020	U	mg/L	0.00020	1	4/22/14	4/22/14 16:08	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 08:13	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil
 Sample Name: Method Blank
 Lab Code: R1402721-MB4

Service Request: R1402721
 Date Collected: NA
 Date Received: NA

Basis: As Received

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/22/14 14:50	
Barium	6010C	1.0	U	mg/L	1.0	1	4/21/14	4/22/14 14:50	
Cadmium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Chromium	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Lead	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	4/22/14	4/22/14 16:08	
Selenium	6010C	0.50	U	mg/L	0.50	1	4/21/14	4/23/14 08:13	
Silver	6010C	0.10	U	mg/L	0.10	1	4/21/14	4/22/14 14:50	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
 Project: Varian Beverly/150151
 Sample Matrix: Soil

Service Request: R1402721
 Date Analyzed: 4/22/14 -
 4/23/14

Lab Control Sample Summary
 Inorganic Parameters

Units: mg/L
 Basis: As Received

Lab Control Sample
 R1402721-LCS1

Analyte Name	Method	Spike		% Rec	% Rec Limits
		Result	Amount		
Arsenic	6010C	4.81	5.0	96	80 - 120
Barium	6010C	5.32	5.0	106	80 - 120
Cadmium	6010C	1.00	1.00	100	80 - 120
Chromium	6010C	5.11	5.00	102	80 - 120
Lead	6010C	5.02	5.00	100	80 - 120
Mercury	7470A	0.000901	0.00100	90	80 - 120
Selenium	6010C	0.949	1.00	95	80 - 120
Silver	6010C	5.03	5.00	101	80 - 120

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/150151
 Sample Matrix: Water

Service Request: R1402721
 Date Analyzed: 4/22/14 -
 4/23/14

Lab Control Sample Summary
 Inorganic Parameters

Units: mg/L
 Basis: NA

Lab Control Sample
 R1402721-LCS2

Analyte Name	Method	Spike			% Rec	% Rec Limits
		Result	Amount	% Rec		
Arsenic	6010C	4.81	5.0	96	80 - 120	
Barium	6010C	5.32	5.0	106	80 - 120	
Cadmium	6010C	1.00	1.00	100	80 - 120	
Chromium	6010C	5.11	5.00	102	80 - 120	
Lead	6010C	5.02	5.00	100	80 - 120	
Mercury	7470A	0.000901	0.00100	90	80 - 120	
Selenium	6010C	0.949	1.00	95	80 - 120	
Silver	6010C	5.03	5.00	101	80 - 120	

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.



Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number R4-2721

Cooler received on 4-16-14 by: RE COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROC CLIENT
- Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
- Temperature of cooler(s) upon receipt: 0.0 4.9

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N
If No, Explain Below Date/Time Temperatures Taken: 4-16-14 @ 09:39

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 R-002 by RE on 4-16-14 at 09:45
5035 samples placed in storage location by on at

PC Secondary Review: MS 4/16/14

Cooler Breakdown: Date: 4/16/14 Time: 1653 by: SM

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

Explain any discrepancies:

pH	Reagent	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO							
≥12	NaOH									
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-							*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet
	Zn Aceta	-	-							
	HCl	*	*							

Bottle lot numbers: 082613-2ABI, 172313-1BSNU

Other Comments: * Bldg 3 Line 8: 1 of 3 vials has significant headspace.
RE 4-16-14

PC Secondary Review: MS 4/24/14 significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc **Job Number :** 150151.20
Prepared By: Dale Dailey **Date :** 6/5/2014
Matrix: Soil
Analyte Group : Volatile Organics **Analytical Method :** SW-846 8260C
 Total Solids Modified EPA 160.3
Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** 1402727
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
4/15/14	Modified EPA 160.3	14 days	14 Days	4/18/2014
4/15/14	VOC 8260C	14 days	30 Days	4/18, 4/22, 4/23/14

Sample temperature within QC limits: No, 6.5 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 : NA

Trip Blank ID : NA

Method Blank: 8260C 4/18, 4/22, 4/23/14

160.3 Modified 4/18/2014

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.

The % recovery was outside limits in the LCS or LCSD for 1,2,2-Trichlorotrifluoroethane in batch 388901. The RPD was outside limits in the LCS or LCSD for carbondisulfide in batch 389503. The data was not impacted since the analytical results in these batches were non-detect for these analytes.

Continuing Calibration Verification for 1,1,2-Trichlorotrifluoroethane was outside QC Limits in batch 388901. Results were non-detect for this analyte, but associate data were given a UJ qualifier (sample OB45-WC).

Samples were insulated from the ice by large amount of bubble wrap.

Reviewed By: Pernilla Haley 6/9/14



April 25, 2014

Service Request No: R1402727

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

Laboratory Results for: Varian Beverly/150151-08

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on April 17, 2014. For your reference, these analyses have been assigned our service request number **R1402727**.

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

Page 1 of 33

CC: Pemilla Haley

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Soil

Service Request No.: R1402727
Project Number: 150151-08
Date Received: 04/17/14

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 04/15/14 and received at ALS in good condition at a cooler temperature of 6.5 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C or frozen 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

Three soil samples were analyzed for a site list of Volatile Organics by SW-846 Method 5035/8260C.

All initial calibrations were compliant.

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

- CCV from 04/18/14: Freon 113

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

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits except the LCS/LCSD from 04/18/14 for Freon 113. All RPD's were acceptable except the 04/23-24/14 RPD for Carbon disulfide. All outlying QC has been flagged with an "***".

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

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):
R1402727-001-003

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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"?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input type="checkbox"/> Yes	<input type="checkbox"/> 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)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

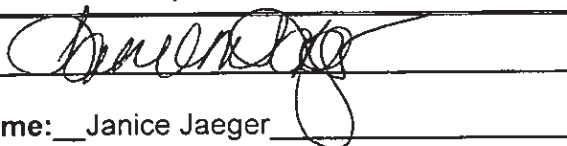
Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹

¹All 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: R1402727

<u>Lab ID</u>	<u>Client ID</u>
R1402727-001	OB45-WC
R1402727-002	OB-45DO
R1402727-003	OB-45S

00004



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/Aroclors).
- 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 ($\geq 100\%$ 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.

A handwritten signature in cursive script, reading "Oscar C. Jacobo".

Director, Division of Environmental Analysis

Issued: 08 JAN 2014

Expires: 30 JUN 2014

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
<u>Analytes</u>			<u>Methods</u>	
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	

June 25, 2013

*= Provisional Certification

Page 1 of 2

00007

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

<u>Analytes</u>	<u>Methods</u>
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 385.1
PHOSPHORUS, TOTAL	EPA 385.1
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/150151-08
Sample Matrix: Soil
Sample Name: OB45-WC
Lab Code: R1402727-001

Service Request: R1402727
Date Collected: 4/15/14 1345
Date Received: 4/17/14

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	93.7	Percent	1.0	1	NA	4/18/14 08:15	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Soil

Service Request: R1402727
 Date Collected: 4/15/14 1345
 Date Received: 4/17/14
 Date Analyzed: 4/18/14 19:02

Sample Name: OB45-WC
 Lab Code: R1402727-001

Units: µg/Kg
 Basis: Dry
 Percent Solids: 93.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041814\K8520.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1.17

CAS No.	Analyte Name	Result Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	6.2 U	6.2	
79-34-5	1,1,2,2-Tetrachloroethane	6.2 U	6.2	
79-00-5	1,1,2-Trichloroethane	6.2 U	6.2	
76-13-1	1,1,2-Trichlorotrifluoroethane	6.2 U	6.2	
75-34-3	1,1-Dichloroethane (1,1-DCA)	6.2 U	6.2	
75-35-4	1,1-Dichloroethene (1,1-DCE)	6.2 U	6.2	
95-50-1	1,2-Dichlorobenzene	6.2 U	6.2	
107-06-2	1,2-Dichloroethane	6.2 U	6.2	
78-87-5	1,2-Dichloropropane	6.2 U	6.2	
78-93-3	2-Butanone (MEK)	6.2 U	6.2	
591-78-6	2-Hexanone	6.2 U	6.2	
108-10-1	4-Methyl-2-pentanone	6.2 U	6.2	
67-64-1	Acetone	6.2 U	6.2	
71-43-2	Benzene	6.2 U	6.2	
75-27-4	Bromodichloromethane	6.2 U	6.2	
75-25-2	Bromoform	6.2 U	6.2	
74-83-9	Bromomethane	6.2 U	6.2	
75-15-0	Carbon Disulfide	6.2 U	6.2	
56-23-5	Carbon Tetrachloride	6.2 U	6.2	
108-90-7	Chlorobenzene	6.2 U	6.2	
75-00-3	Chloroethane	6.2 U	6.2	
67-66-3	Chloroform	6.2 U	6.2	
74-87-3	Chloromethane	6.2 U	6.2	
124-48-1	Dibromochloromethane	6.2 U	6.2	
75-09-2	Dichloromethane	6.2 U	6.2	
100-41-4	Ethylbenzene	6.2 U	6.2	
100-42-5	Styrene	6.2 U	6.2	
127-18-4	Tetrachloroethene (PCE)	6.2 U	6.2	
108-88-3	Toluene	6.2 U	6.2	
79-01-6	Trichloroethene (TCE)	6.2 U	6.2	
75-69-4	Trichlorofluoromethane (CFC 11)	6.2 U	6.2	
75-01-4	Vinyl Chloride	6.2 U	6.2	
156-59-2	cis-1,2-Dichloroethene	6.2 U	6.2	
10061-01-5	cis-1,3-Dichloropropene	6.2 U	6.2	
179601-23-1	m,p-Xylenes	12 U	12	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Soil

Service Request: R1402727
 Date Collected: 4/15/14 1345
 Date Received: 4/17/14
 Date Analyzed: 4/18/14 19:02

Sample Name: OB45-WC
 Lab Code: R1402727-001

Units: µg/Kg
 Basis: Dry
 Percent Solids: 93.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\041814\K8520.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1.17

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	6.2 U	6.2	
156-60-5	trans-1,2-Dichloroethene	6.2 U	6.2	
10061-02-6	trans-1,3-Dichloropropene	6.2 U	6.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	4/18/14 19:02	
Dibromofluoromethane	91	70-130	4/18/14 19:02	
Toluene-d8	99	70-130	4/18/14 19:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: 4/15/14 1445
 Date Received: 4/17/14
 Date Analyzed: 4/23/14 16:59

Sample Name: OB-45DO
 Lab Code: R1402727-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\042314\K8669.D\

Analysis Lot: 389503
 Instrument Name: R-MS-07
 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	
76-13-1	1,1,2-Trichlorotrifluoroethane	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	
95-50-1	1,2-Dichlorobenzene	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	
78-93-3	2-Butanone (MEK)	25 U	25	
591-78-6	2-Hexanone	25 U	25	
108-10-1	4-Methyl-2-pentanone	25 U	25	
67-64-1	Acetone	35	25	
71-43-2	Benzene	5.0 U	5.0	
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	
75-15-0	Carbon Disulfide	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	Dichloromethane	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
100-42-5	Styrene	5.0 U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.9	5.0	
108-88-3	Toluene	5.0 U	5.0	
79-01-6	Trichloroethene (TCE)	270	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	370	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: 4/15/14 1445
 Date Received: 4/17/14
 Date Analyzed: 4/23/14 16:59

Sample Name: OB-45DO
 Lab Code: R1402727-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\042314\K8669.D\

Analysis Lot: 389503
 Instrument Name: R-MS-07
 Dilution Factor: 2.5

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	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	93	70-130	4/23/14 16:59	
Dibromofluoromethane	92	70-130	4/23/14 16:59	
Toluene-d8	100	70-130	4/23/14 16:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: 4/15/14 1430
 Date Received: 4/17/14
 Date Analyzed: 4/22/14 16:30

Sample Name: OB-45S
 Lab Code: R1402727-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J5002.D\

Analysis Lot: 389276
 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	
76-13-1	1,1,2-Trichlorotrifluoroethane	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	
95-50-1	1,2-Dichlorobenzene	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	
78-93-3	2-Butanone (MEK)	10 U	10	
591-78-6	2-Hexanone	10 U	10	
108-10-1	4-Methyl-2-pentanone	10 U	10	
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	2.0 U	2.0	
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	
75-15-0	Carbon Disulfide	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	Dichloromethane	2.0 U	2.0	
100-41-4	Ethylbenzene	2.0 U	2.0	
100-42-5	Styrene	2.0 U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0 U	2.0	
108-88-3	Toluene	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	
179601-23-1	m,p-Xylenes	2.0 U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: 4/15/14 1430
 Date Received: 4/17/14
 Date Analyzed: 4/22/14 16:30

Sample Name: OB-45S
 Lab Code: R1402727-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J5002.D\

Analysis Lot: 389276
 Instrument Name: R-MS-12
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	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	98	70-130	4/22/14 16:30	
Dibromofluoromethane	100	70-130	4/22/14 16:30	
Toluene-d8	96	70-130	4/22/14 16:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-08
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1402727-MB

Service Request: R1402727
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0 U	Percent	1.0	1	NA	4/18/14 08:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Soil

Service Request: R1402727
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/18/14 15:43

Sample Name: Method Blank
 Lab Code: RQ1403888-05

Units: µg/Kg
 Basis: Dry

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\MSVOA7\DATA\041814\K8515.D\

Analysis Lot: 388901
 Instrument Name: R-MS-07
 Dilution Factor: 1

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	
76-13-1	1,1,2-Trichlorotrifluoroethane	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	
95-50-1	1,2-Dichlorobenzene	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	
78-93-3	2-Butanone (MEK)	5.0 U	5.0	
591-78-6	2-Hexanone	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone	5.0 U	5.0	
67-64-1	Acetone	5.0 U	5.0	
71-43-2	Benzene	5.0 U	5.0	
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	
75-15-0	Carbon Disulfide	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	Dichloromethane	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
100-42-5	Styrene	5.0 U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
79-01-6	Trichloroethene (TCE)	5.0 U	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	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	10 U	10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-08
Sample Matrix: Soil

Service Request: R1402727
Date Collected: NA
Date Received: NA
Date Analyzed: 4/18/14 15:43

Sample Name: Method Blank
Lab Code: RQ1403888-05

Units: µg/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA7\DATA\041814\K8515.D\

Analysis Lot: 388901
Instrument Name: R-MS-07
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	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	93	70-130	4/18/14 15:43	
Dibromofluoromethane	93	70-130	4/18/14 15:43	
Toluene-d8	99	70-130	4/18/14 15:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403997-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J4998.D\

Analysis Lot: 389276
 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	
76-13-1	1,1,2-Trichlorotrifluoroethane	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	
95-50-1	1,2-Dichlorobenzene	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	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	2.0	U	2.0	
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	
75-15-0	Carbon Disulfide	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	Dichloromethane	2.0	U	2.0	
100-41-4	Ethylbenzene	2.0	U	2.0	
100-42-5	Styrene	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
108-88-3	Toluene	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	
179601-23-1	m,p-Xylenes	2.0	U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/22/14 14:22

Sample Name: Method Blank
 Lab Code: RQ1403997-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\msvoa12\Data\042214\J4998.D\

Analysis Lot: 389276
 Instrument Name: R-MS-12
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	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	4/22/14 14:22	
Dibromofluoromethane	100	70-130	4/22/14 14:22	
Toluene-d8	98	70-130	4/22/14 14:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/23/14 15:42

Sample Name: Method Blank
 Lab Code: RQ1404080-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\042314\K8667.D\

Analysis Lot: 389503
 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	
76-13-1	1,1,2-Trichlorotrifluoroethane	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	
95-50-1	1,2-Dichlorobenzene	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	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	2.0	U	2.0	
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	
75-15-0	Carbon Disulfide	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	Dichloromethane	2.0	U	2.0	
100-41-4	Ethylbenzene	2.0	U	2.0	
100-42-5	Styrene	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
108-88-3	Toluene	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	
179601-23-1	m,p-Xylenes	2.0	U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/150151-08
Sample Matrix: Water

Service Request: R1402727
Date Collected: NA
Date Received: NA
Date Analyzed: 4/23/14 15:42

Sample Name: Method Blank
Lab Code: RQ1404080-05

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA7\DATA\042314\K8667.D\

Analysis Lot: 389503
Instrument Name: R-MS-07
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
95-47-6	o-Xylene	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	94	70-130	4/23/14 15:42	
Dibromofluoromethane	95	70-130	4/23/14 15:42	
Toluene-d8	99	70-130	4/23/14 15:42	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
 Project: Varian Beverly/150151-08
 Sample Matrix: Soil

Service Request: R1402727
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
 Basis: Dry

Analysis Lot: 388901

Analyte Name	Lab Control Sample RQ1403888-03			Duplicate Lab Control Sample RQ1403888-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	18.2	20.0	91	17.7	20.0	88	70 - 130	3	20
1,1,2,2-Tetrachloroethane	19.7	20.0	99	19.2	20.0	96	70 - 130	3	20
1,1,2-Trichloroethane	19.0	20.0	95	18.8	20.0	94	70 - 130	1	20
1,1,2-Trichlorotrifluoroethane	30.3	20.0	151 *	28.0	20.0	140 *	70 - 130	8	20
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	18.8	20.0	94	70 - 130	1	20
1,1-Dichloroethene (1,1-DCE)	23.6	20.0	118	22.9	20.0	114	70 - 130	3	20
1,2-Dichlorobenzene	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20
1,2-Dichloroethane	16.7	20.0	84	16.8	20.0	84	70 - 130	<1	20
1,2-Dichloropropane	20.4	20.0	102	20.2	20.0	101	70 - 130	<1	20
2-Butanone (MEK)	17.0	20.0	85	17.3	20.0	86	40 - 160	1	20
2-Hexanone	17.1	20.0	86	17.4	20.0	87	40 - 160	1	20
4-Methyl-2-pentanone	17.3	20.0	86	17.8	20.0	89	40 - 160	3	20
Acetone	19.2	20.0	96	18.3	20.0	91	40 - 160	5	20
Benzene	20.6	20.0	103	20.2	20.0	101	70 - 130	2	20
Bromodichloromethane	18.7	20.0	93	18.6	20.0	93	70 - 130	<1	20
Bromoform	17.2	20.0	86	18.8	20.0	94	70 - 130	9	20
Bromomethane	20.0	20.0	100	18.5	20.0	93	40 - 160	7	20
Carbon Disulfide	19.4	20.0	97	18.3	20.0	91	70 - 130	6	20
Carbon Tetrachloride	18.9	20.0	94	18.5	20.0	92	70 - 130	2	20
Chlorobenzene	20.8	20.0	104	20.1	20.0	100	70 - 130	4	20
Chloroethane	21.2	20.0	106	20.7	20.0	103	70 - 130	3	20
Chloroform	18.0	20.0	90	17.7	20.0	88	70 - 130	2	20
Chloromethane	21.4	20.0	107	20.7	20.0	103	40 - 160	4	20
Dibromochloromethane	18.9	20.0	94	18.7	20.0	94	70 - 130	<1	20
Dichloromethane	20.9	20.0	104	20.7	20.0	104	70 - 130	<1	20
Ethylbenzene	20.5	20.0	102	20.1	20.0	100	70 - 130	2	20
Styrene	21.0	20.0	105	20.6	20.0	103	70 - 130	2	20
Tetrachloroethene (PCE)	22.7	20.0	113	21.8	20.0	109	70 - 130	4	20
Toluene	20.3	20.0	101	19.7	20.0	99	70 - 130	2	20
Trichloroethene (TCE)	20.1	20.0	100	19.9	20.0	100	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	18.2	20.0	91	18.0	20.0	90	70 - 130	1	20
Vinyl Chloride	21.4	20.0	107	20.9	20.0	104	70 - 130	3	20
cis-1,2-Dichloroethene	20.9	20.0	105	20.3	20.0	102	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/150151-08
 Sample Matrix: Soil

Service Request: R1402727
 Date Analyzed: 4/18/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
 Basis: Dry

Analysis Lot: 388901

Analyte Name	Lab Control Sample RQ1403888-03			Duplicate Lab Control Sample RQ1403888-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	18.9	20.0	95	18.3	20.0	91	70 - 130	4	20
m,p-Xylenes	43.0	40.0	107	41.9	40.0	105	70 - 130	2	20
o-Xylene	20.9	20.0	104	21.3	20.0	106	70 - 130	2	20
trans-1,2-Dichloroethene	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20
trans-1,3-Dichloropropene	17.8	20.0	89	17.2	20.0	86	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/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389276

Analyte Name	Lab Control Sample RQ1403997-03			Duplicate Lab Control Sample RQ1403997-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	21.3	20.0	107	20.3	20.0	102	70 - 130	5	20
1,1,2,2-Tetrachloroethane	20.3	20.0	102	19.4	20.0	97	70 - 130	4	20
1,1,2-Trichloroethane	20.7	20.0	103	20.3	20.0	101	70 - 130	2	20
1,1,2-Trichlorotrifluoroethane	21.2	20.0	106	20.5	20.0	103	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	19.9	20.0	100	19.3	20.0	97	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	23.2	20.0	116	22.5	20.0	112	70 - 130	3	20
1,2-Dichlorobenzene	22.6	20.0	113	20.6	20.0	103	70 - 130	9	20
1,2-Dichloroethane	21.8	20.0	109	21.0	20.0	105	70 - 130	3	20
1,2-Dichloropropane	20.2	20.0	101	19.3	20.0	96	70 - 130	4	20
2-Butanone (MEK)	20.2	20.0	101	21.2	20.0	106	40 - 160	5	20
2-Hexanone	20.2	20.0	101	22.6	20.0	113	40 - 160	11	20
4-Methyl-2-pentanone	20.2	20.0	101	19.9	20.0	100	40 - 160	1	20
Acetone	21.1	20.0	106	21.8	20.0	109	40 - 160	3	20
Benzene	20.8	20.0	104	19.8	20.0	99	70 - 130	5	20
Bromodichloromethane	22.2	20.0	111	21.7	20.0	108	70 - 130	2	20
Bromoform	22.1	20.0	111	20.9	20.0	104	70 - 130	6	20
Bromomethane	23.9	20.0	119	22.0	20.0	110	40 - 160	8	20
Carbon Disulfide	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20
Carbon Tetrachloride	22.0	20.0	110	20.5	20.0	102	70 - 130	7	20
Chlorobenzene	21.2	20.0	106	20.5	20.0	103	70 - 130	3	20
Chloroethane	22.3	20.0	112	21.6	20.0	108	70 - 130	3	20
Chloroform	20.3	20.0	102	19.6	20.0	98	70 - 130	3	20
Chloromethane	22.5	20.0	113	21.4	20.0	107	40 - 160	5	20
Dibromochloromethane	22.3	20.0	112	22.2	20.0	111	70 - 130	<1	20
Dichloromethane	19.6	20.0	98	19.3	20.0	96	70 - 130	2	20
Ethylbenzene	21.7	20.0	109	20.3	20.0	101	70 - 130	7	20
Styrene	21.9	20.0	109	21.0	20.0	105	70 - 130	4	20
Tetrachloroethene (PCE)	22.4	20.0	112	20.8	20.0	104	70 - 130	8	20
Toluene	21.0	20.0	105	20.3	20.0	101	70 - 130	4	20
Trichloroethene (TCE)	21.9	20.0	109	21.0	20.0	105	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	20.4	20.0	102	70 - 130	6	20
Vinyl Chloride	23.3	20.0	116	22.3	20.0	112	70 - 130	4	20
cis-1,2-Dichloroethene	19.9	20.0	99	19.2	20.0	96	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/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Analyzed: 4/22/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389276

Analyte Name	Lab Control Sample RQ1403997-03			Duplicate Lab Control Sample RQ1403997-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	21.0	20.0	105	20.0	20.0	100	70 - 130	5	20
m,p-Xylenes	45.2	40.0	113	43.1	40.0	108	70 - 130	5	20
o-Xylene	21.6	20.0	108	20.3	20.0	101	70 - 130	6	20
trans-1,2-Dichloroethene	21.4	20.0	107	20.1	20.0	100	70 - 130	6	20
trans-1,3-Dichloropropene	22.2	20.0	111	21.6	20.0	108	70 - 130	2	20

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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/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Analyzed: 4/23/14 -
 4/24/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389503

Analyte Name	Lab Control Sample RQ1404080-03			Duplicate Lab Control Sample RQ1404080-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	17.9	20.0	89	16.5	20.0	83	70 - 130	8	20
1,1,2,2-Tetrachloroethane	20.9	20.0	105	18.2	20.0	91	70 - 130	14	20
1,1,2-Trichloroethane	20.6	20.0	103	19.7	20.0	98	70 - 130	5	20
1,1,2-Trichlorotrifluoroethane	21.3	20.0	106	19.1	20.0	96	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	19.2	20.0	96	17.7	20.0	89	70 - 130	8	20
1,1-Dichloroethene (1,1-DCE)	22.7	20.0	114	19.7	20.0	99	70 - 130	14	20
1,2-Dichlorobenzene	19.8	20.0	99	19.2	20.0	96	70 - 130	3	20
1,2-Dichloroethane	18.2	20.0	91	18.2	20.0	91	70 - 130	<1	20
1,2-Dichloropropane	21.3	20.0	107	19.5	20.0	97	70 - 130	9	20
2-Butanone (MEK)	19.0	20.0	95	16.5	20.0	83	40 - 160	14	20
2-Hexanone	18.5	20.0	92	17.9	20.0	90	40 - 160	3	20
4-Methyl-2-pentanone	19.2	20.0	96	18.8	20.0	94	40 - 160	2	20
Acetone	17.1	20.0	86	15.0	20.0	75	40 - 160	13	20
Benzene	20.0	20.0	100	18.0	20.0	90	70 - 130	10	20
Bromodichloromethane	19.5	20.0	97	18.4	20.0	92	70 - 130	6	20
Bromoform	19.7	20.0	99	18.7	20.0	94	70 - 130	5	20
Bromomethane	18.0	20.0	90	15.4	20.0	77	40 - 160	16	20
Carbon Disulfide	21.0	20.0	105	16.1	20.0	80	70 - 130	27 *	20
Carbon Tetrachloride	18.8	20.0	94	16.3	20.0	82	70 - 130	14	20
Chlorobenzene	20.3	20.0	101	18.8	20.0	94	70 - 130	8	20
Chloroethane	20.0	20.0	100	17.7	20.0	89	70 - 130	12	20
Chloroform	18.6	20.0	93	17.4	20.0	87	70 - 130	7	20
Chloromethane	19.8	20.0	99	17.5	20.0	88	40 - 160	12	20
Dibromochloromethane	20.0	20.0	100	18.8	20.0	94	70 - 130	6	20
Dichloromethane	20.0	20.0	100	18.7	20.0	93	70 - 130	7	20
Ethylbenzene	20.0	20.0	100	18.2	20.0	91	70 - 130	10	20
Styrene	20.7	20.0	103	19.4	20.0	97	70 - 130	7	20
Tetrachloroethene (PCE)	20.8	20.0	104	18.3	20.0	91	70 - 130	13	20
Toluene	20.6	20.0	103	18.6	20.0	93	70 - 130	10	20
Trichloroethene (TCE)	19.9	20.0	100	19.8	20.0	99	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	18.2	20.0	91	16.7	20.0	83	70 - 130	9	20
Vinyl Chloride	20.0	20.0	100	17.1	20.0	85	70 - 130	16	20
cis-1,2-Dichloroethene	20.3	20.0	102	18.3	20.0	92	70 - 130	10	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/150151-08
 Sample Matrix: Water

Service Request: R1402727
 Date Analyzed: 4/23/14 -
 4/24/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 389503

Analyte Name	Lab Control Sample RQ1404080-03			Duplicate Lab Control Sample RQ1404080-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	19.6	20.0	98	17.1	20.0	85	70 - 130	13	20
m,p-Xylenes	41.3	40.0	103	37.9	40.0	95	70 - 130	8	20
o-Xylene	20.5	20.0	102	19.4	20.0	97	70 - 130	6	20
trans-1,2-Dichloroethene	20.7	20.0	104	18.5	20.0	92	70 - 130	12	20
trans-1,3-Dichloropropene	18.9	20.0	94	17.2	20.0	86	70 - 130	10	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.

Client: CB&I
Project: Varian Beverly/150151-08

Service Request: R1402727
Date Analyzed: 4/18/14

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Calibration Date: 2/3/14
Calibration ID: RC1400008
Analysis Lot: 388901
Units: ppb

File ID: I:\ACQUDATA\MSVOA7\DATA\041814\K8511.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	45.8	0.8478	0.7765	-8.4	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	48.2	1.158	1.117	-3.5	NA	± 20 %	Average RF
1,1,2-Trichloroethane	50.0	47.6	0.3209	0.3054	-4.8	NA	± 20 %	Average RF
1,1,2-Trichlorotrifluoroethane	50.0	69.4	0.3435	0.4769	38.8 *	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	45.4	1.327	1.205	-9.2	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.2	0.3954	0.3809	-3.7	NA	± 20 %	Average RF
1,2-Dichlorobenzene	50.0	50.4	1.496	1.507	0.8	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	40.7	0.5986	0.4876	-18.5	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	47.1	0.4648	0.4377	-5.8	NA	± 20 %	Average RF
2-Butanone (MEK)	50.0	45.9	0.6232	0.5725	-8.1	NA	± 60 %	Average RF
2-Hexanone	50.0	44.9	0.5619	0.5049	-10.1	NA	± 60 %	Average RF
4-Methyl-2-pentanone	50.0	44.5	0.7654	0.6818	-10.9	NA	± 60 %	Average RF
Acetone	50.0	54.6	NA	NA	NA	9.1	± 60 %	Quadratic
Benzene	50.0	48.2	1.403	1.351	-3.7	NA	± 20 %	Average RF
Bromodichloromethane	50.0	45.0	0.5219	0.4693	-10.1	NA	± 20 %	Average RF
Bromoform	50.0	49.4	0.2684	0.2651	-1.2	NA	± 20 %	Average RF
Bromomethane	50.0	45.7	0.4202	0.3840	-8.6	NA	± 60 %	Average RF
Carbon Disulfide	50.0	51.8	1.803	1.867	3.5	NA	± 20 %	Average RF
Carbon Tetrachloride	50.0	46.6	0.3748	0.3495	-6.8	NA	± 20 %	Average RF
Chlorobenzene	50.0	51.0	0.9281	0.9462	2.0	NA	± 20 %	Average RF
Chloroethane	50.0	49.0	0.5156	0.5055	-2.0	NA	± 20 %	Average RF
Chloroform	50.0	44.7	1.149	1.027	-10.7	NA	± 20 %	Average RF
Chloromethane	50.0	49.8	0.9612	0.9575	-0.4	NA	± 60 %	Average RF
Dibromochloromethane	50.0	49.0	0.4107	0.4023	-2.0	NA	± 20 %	Average RF
Dichloromethane	50.0	47.5	0.6446	0.6124	-5.0	NA	± 20 %	Average RF
Ethylbenzene	50.0	49.0	1.659	1.626	-2.0	NA	± 20 %	Average RF
Styrene	50.0	50.5	1.029	1.039	1.0	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	52.6	0.3238	0.3408	5.2	NA	± 20 %	Average RF
Toluene	50.0	48.3	1.444	1.395	-3.4	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	45.6	0.3331	0.3036	-8.9	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	47.2	0.7625	0.7204	-5.5	NA	± 20 %	Average RF
Vinyl Chloride	50.0	50.1	0.7866	0.7878	0.2	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	48.8	0.6288	0.6135	-2.4	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	46.9	0.6876	0.6453	-6.1	NA	± 20 %	Average RF
m,p-Xylenes	100	102	0.5795	0.5894	1.7	NA	± 20 %	Average RF
o-Xylene	50.0	50.8	0.5803	0.5898	1.6	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	48.0	0.5321	0.5102	-4.1	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	44.6	0.6807	0.6067	-10.9	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	46.3	0.5180	0.4794	-7.5	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	46.6	0.3518	0.3281	-6.7	NA	± 20 %	Average RF
Toluene-d8	50.0	49.9	1.245	1.243	-0.1	NA	± 20 %	Average RF

Client: CB&I
 Project: Varian Beverly/150151-08

Service Request: R1402727
 Date Analyzed: 4/22/14

Continuing Calibration Verification Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Calibration Date: 3/12/14
 Calibration ID: RC1400023
 Analysis Lot: 389276
 Units: ppb

File ID: I:\ACQUADATA\msvov12\Data\042214\J4994.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.3	0.7112	0.7018	-1.3	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	47.1	0.5726	0.5399	-5.7	NA	± 20 %	Average RF
1,1,2-Trichloroethane	50.0	50.8	0.2220	0.2255	1.5	NA	± 20 %	Average RF
1,1,2-Trichlorotrifluoroethane	50.0	48.1	0.3971	0.3816	-3.9	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	45.6	0.8461	0.7721	-8.8	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.3	0.3628	0.3362	-7.3	NA	± 20 %	Average RF
1,2-Dichlorobenzene	50.0	51.2	1.206	1.234	2.4	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	52.5	0.3737	0.3927	5.1	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	46.6	0.3148	0.2936	-6.7	NA	± 20 %	Average RF
2-Butanone (MEK)	50.0	56.6	0.1390	0.1572	13.1	NA	± 60 %	Average RF
2-Hexanone	50.0	56.8	0.1416	0.1610	13.7	NA	± 60 %	Average RF
4-Methyl-2-pentanone	50.0	54.4	0.1899	0.2065	8.8	NA	± 60 %	Average RF
Acetone	50.0	57.6	0.09920	0.1143	15.2	NA	± 60 %	Average RF
Benzene	50.0	47.4	1.231	1.167	-5.2	NA	± 20 %	Average RF
Bromodichloromethane	50.0	53.3	0.3677	0.3922	6.7	NA	± 20 %	Average RF
Bromoform	50.0	55.3	0.2840	0.3143	10.7	NA	± 20 %	Average RF
Bromomethane	50.0	52.1	0.2881	0.2999	4.1	NA	± 60 %	Average RF
Carbon Disulfide	50.0	51.7	1.262	1.306	3.5	NA	± 20 %	Average RF
Carbon Tetrachloride	50.0	50.1	0.1199	0.1200	0.1	NA	± 20 %	Average RF
Chlorobenzene	50.0	49.6	0.8701	0.8626	-0.9	NA	± 20 %	Average RF
Chloroethane	50.0	50.7	0.2851	0.2889	1.3	NA	± 20 %	Average RF
Chloroform	50.0	47.3	0.8292	0.7849	-5.3	NA	± 20 %	Average RF
Chloromethane	50.0	47.8	0.5146	0.4918	-4.4	NA	± 60 %	Average RF
Dibromochloromethane	50.0	55.6	0.2588	0.2880	11.3	NA	± 20 %	Average RF
Dichloromethane	50.0	43.8	0.4753	0.4160	-12.5	NA	± 20 %	Average RF
Ethylbenzene	50.0	50.3	0.4636	0.4664	0.6	NA	± 20 %	Average RF
Styrene	50.0	53.7	0.8888	0.9550	7.5	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	49.9	0.2583	0.2576	-0.3	NA	± 20 %	Average RF
Toluene	50.0	49.9	1.269	1.267	-0.2	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	50.8	0.2982	0.3026	1.5	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	50.5	0.7340	0.7412	1.0	NA	± 20 %	Average RF
Vinyl Chloride	50.0	52.4	0.4781	0.5014	4.9	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	46.9	0.5073	0.4758	-6.2	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	53.2	0.4363	0.4639	6.3	NA	± 20 %	Average RF
m,p-Xylenes	100	104	0.5448	0.5673	4.1	NA	± 20 %	Average RF
o-Xylene	50.0	50.9	0.5559	0.5658	1.8	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	46.4	0.4546	0.4218	-7.2	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	56.8	0.3517	0.3997	13.7	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	52.7	0.4538	0.4783	5.4	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	51.5	0.2895	0.2979	2.9	NA	± 20 %	Average RF
Toluene-d8	50.0	49.7	1.216	1.210	-0.5	NA	± 20 %	Average RF

Client: CB&I
 Project: Varian Beverly/150151-08

Service Request: R1402727
 Date Analyzed: 4/23/14

Continuing Calibration Verification Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Calibration Date: 2/12/14
 Calibration ID: RC1400016
 Analysis Lot: 389503
 Units: ppb

File ID: I:\ACQUDATA\MSVOA7\DATA\042314\K8663.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.4	0.7556	0.6558	-13.2	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	51.5	0.7954	0.8191	3.0	NA	± 20 %	Average RF
1,1,2-Trichloroethane	50.0	50.8	0.2526	0.2564	1.5	NA	± 20 %	Average RF
1,1,2-Trichlorotrifluoroethane	50.0	49.8	0.4316	0.4298	-0.4	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	45.2	1.162	1.050	-9.6	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	44.8	0.3955	0.3540	-10.5	NA	± 20 %	Average RF
1,2-Dichlorobenzene	50.0	49.9	1.257	1.256	-0.1	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	44.4	0.4672	0.4144	-11.3	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	49.5	0.4018	0.3978	-1.0	NA	± 20 %	Average RF
2-Butanone (MEK)	50.0	46.4	0.3528	0.3276	-7.1	NA	± 60 %	Average RF
2-Hexanone	50.0	47.6	0.3403	0.3236	-4.9	NA	± 60 %	Average RF
4-Methyl-2-pentanone	50.0	49.8	0.4753	0.4732	-0.4	NA	± 60 %	Average RF
Acetone	50.0	38.9	0.2443	0.1902	-22.2	NA	± 60 %	Average RF
Benzene	50.0	46.3	1.327	1.229	-7.4	NA	± 20 %	Average RF
Bromodichloromethane	50.0	46.7	0.4467	0.4168	-6.7	NA	± 20 %	Average RF
Bromoform	50.0	51.9	0.1922	0.1995	3.8	NA	± 20 %	Average RF
Bromomethane	50.0	43.1	0.4226	0.3638	-13.9	NA	± 60 %	Average RF
Carbon Disulfide	50.0	53.8	1.667	1.794	7.6	NA	± 20 %	Average RF
Carbon Tetrachloride	50.0	43.6	0.3467	0.3026	-12.7	NA	± 20 %	Average RF
Chlorobenzene	50.0	49.0	0.8455	0.8293	-1.9	NA	± 20 %	Average RF
Chloroethane	50.0	48.4	0.5091	0.4931	-3.2	NA	± 20 %	Average RF
Chloroform	50.0	43.8	0.9988	0.8743	-12.5	NA	± 20 %	Average RF
Chloromethane	50.0	44.7	0.8890	0.7946	-10.6	NA	± 60 %	Average RF
Dibromochloromethane	50.0	50.3	0.3395	0.3418	0.7	NA	± 20 %	Average RF
Dichloromethane	50.0	45.4	0.5971	0.5422	-9.2	NA	± 20 %	Average RF
Ethylbenzene	50.0	47.7	1.482	1.413	-4.6	NA	± 20 %	Average RF
Styrene	50.0	50.7	0.9130	0.9253	1.3	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	49.4	0.3135	0.3099	-1.2	NA	± 20 %	Average RF
Toluene	50.0	49.5	1.301	1.287	-1.1	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	46.6	0.3064	0.2855	-6.8	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	43.0	0.7006	0.6019	-14.1	NA	± 20 %	Average RF
Vinyl Chloride	50.0	46.5	0.7552	0.7026	-7.0	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	47.4	0.5845	0.5544	-5.2	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	48.2	0.6033	0.5810	-3.7	NA	± 20 %	Average RF
m,p-Xylenes	100	100	0.5222	0.5230	0.2	NA	± 20 %	Average RF
o-Xylene	50.0	50.4	0.5207	0.5249	0.8	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	47.2	0.5042	0.4756	-5.7	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	48.2	0.5469	0.5277	-3.5	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	47.8	0.5084	0.4861	-4.4	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	45.8	0.3497	0.3206	-8.3	NA	± 20 %	Average RF
Toluene-d8	50.0	51.1	1.207	1.233	2.2	NA	± 20 %	Average RF



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 14853

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 150151-08		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager R. Cabonette		Report CC		PRESERVATIVE	
Company/Address 150 Royall Dr Canton, MA 02021		NUMBER OF CONTAINERS		GCMS VOAS • 8290 • 824 • CLP	
Phone # 617-589-5327		Email raymond.cabonette@cbi.com		GCMS SVOAS • 8270 • 825	
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Dale Darter		GC VOAS • 8021 • 801/802	
CLIENT SAMPLE ID	DATE	SAMPLING TIME	MATRIX	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)
0845-WC	4/15/14	1345	S	160.3 ml. TS	
0845-PO	4/15/14	1445	W		
08-415-PO	4/15/14	1430	W		
08-415					
SPECIAL INSTRUCTIONS/COMMENTS Metals MANEP CAN 02A102					
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day <input checked="" type="checkbox"/> 5 day _____					
REPORT REQUIREMENTS I. Results Only _____ II. Results + OC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + OC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____					
INVOICE INFORMATION PO # _____ BILL TO: CRIZ					
RECEIVED BY <i>[Signature]</i>		RECEIVED BY <i>[Signature]</i>		RECEIVED BY	
Signature Dale Darter		Signature Valerie Serso		Signature <i>[Signature]</i>	
Printed Name CBT		Printed Name Valerie Serso		Printed Name Gregory O. Estimation	
Firm 4/15/14 16:00		Firm CB & I		Firm ALS	
Date/Time		Date/Time 4/15/14 16:00		Date/Time 4/17/14 8:45	

R1402727
7 Y
CB&I Environmental & Infrastructure
Varian Beverly



Cooler Receipt and Preservation Check Form

Project/Client CBI Folder Number R14-2727

Cooler received on 4-17-14 by: NE COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES * NO NE 4-17-14
- Where did the bottles originate? ALS/ROC CLIENT
- Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
- Temperature of cooler(s) upon receipt: 6.5°*

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: 4-17-14 @ 09:01

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	<u>R-002</u>	by <u>NE</u>	on <u>4-17-14</u>	at <u>09:05</u>
5035 samples placed in storage location	<u>E-05</u>	by <u>NE</u>	on <u>4-17-14</u>	at <u>09:05</u>

PC Secondary Review: MMJ 4/17/14

Cooler Breakdown: Date: 4/17/14 Time: 1732 by: sh

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

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
≥12	NaOH									
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						
	Na ₂ S ₂ O ₃	-	-							
	Zn Aceta	-	-							
	HCl	*	*	<u>4112120</u>	<u>3/15</u>					

Bottle lot numbers: 4002-003, 031714-1BWS
Other Comments:

* Samples were insulated from ice by a large amount of bubble wrap

NE 4-17-14

PC Secondary Review: MMJ 4/21/14

*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 :** 6/3/2014
Matrix: Groundwater
Analyte Group : Volatile Organics **Analytical Method :** SW-846 8260C
Metals
6010 C
Chloride SM 4500-CL-E
Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** R1402779
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
4/16/14	SW-846 8260C	14 days	10 days	4/25, 4/26/14
4/16/14	6010 C	180 Days	180 Days	4/21, 4/22/14
4/16/14	SM 4500-CL-E	28 Days	28 Days	4/22/14

Sample temperature within QC limits: Yes, 2.8 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 : NA

Trip Blank ID : NA

Method Blank: SW-846 8260C 4/25/2014

6010 C 4/22/2014

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. AP26-DO (60), AP31-DO (30), OB-25-BR (86), OB26-DO (59), OB26-BR (90) AND OB28-BR (89) were 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 except 1,1-dichloroethane was outside limits high on the 4/24/14 LCS. Various RPD's were outside limits, including 1,1-dichloroethene, bromoform, Vinyl Chloride, and Acetone in batches 389662 and 389843. All outlying QC has been flagged with an "****". The data was impacted for analyte vinyl chloride which was given a J qualifier in OB-25-BR (86'), OB26-BR (90) and OB-19-DO (56). No other data was impacted.

* COC with added depth values did not scan well, but is included with original COC in the report.

Reviewed By: Pernilla Haley, 6/5/14



April 29, 2014

Service Request No: R1402779

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

Laboratory Results for: Varian Beverly/150148-05000000

Dear Mr. Cadorette:

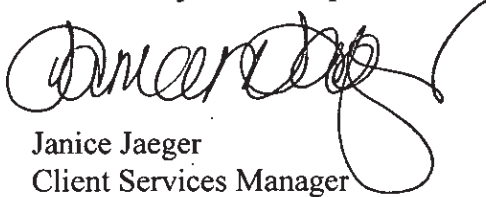
Enclosed are the results of the sample(s) submitted to our laboratory on April 18, 2014. For your reference, these analyses have been assigned our service request number **R1402779**.

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

Page 1 of 46

CC: Pernilla Haley

CASE NARRATIVE

Client: CB&I
Project: Varian Beverly
Sample Matrix: Water

Service Request No.: R1402779
Project Number: 150148-05000000
Date Received: 04/18/14

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 04/16/14 and received at ALS in good condition at a cooler temperature of 2.8 °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

Eight 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 AP26-DO (60'), AP31-DO (30'), OB-25-BR (86'), OB26-DO (59'), OB26-BR (90') and OB28-BR (89') 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 except 1,1,-Dichloroethane was outside limits high on the 04/24/14 LCS. Various RPD's were outside limits. 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

Five 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.

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):
R1402779-001-008

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

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/>	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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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"?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input type="checkbox"/> Yes	<input type="checkbox"/> 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)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

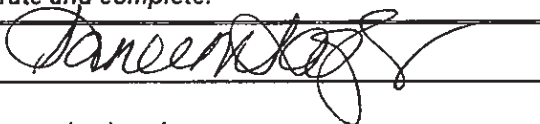
Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹

¹All 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: 04/29/14

00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402779

<u>Lab ID</u>	<u>Client ID</u>
R1402779-001	AP26-DO (60')
R1402779-002	AP31-DO (30')
R1402779-003	AP32-DO (30')
R1402779-004	OB19-DO (56')
R1402779-005	OB-25-BR (86')
R1402779-006	OB26-DO (59')
R1402779-007	OB26-BR (90')
R1402779-008	OB28-BR (89')

00004