GTE Operations Support Incorporated
One Verizon Way (VC34W414)
Basking Ridge, New Jersey 07920-1097

June 12, 2013

Mr. Thomas Festa
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7017

Re: *March 2013 Semi-Annual Groundwater Sampling Event*

Dear Mr. Festa:

Attached are the March 2013 semi-annual groundwater sampling results for the Former Philips Display Components Facility in Seneca Falls, New York (Site). Chlorinated volatile organic compounds, primarily trichloroethene and cis-1,2-dichloroethene, were reported in select groundwater samples at concentrations greater than New York State Department of Environmental Conservation (NYSDEC) Class GA Standards.

The next semi-annual groundwater sampling event is tentatively scheduled for the week of September 16, 2013.

Please call me at (908) 559-3691 if you have any questions.

Sincerely,

Pam M. Cox /MAF

Pam M. Cox, PG, CHMM
Manager – Corporate Workplace Safety &
Environmental Compliance

cc:
Mr. Michael Hanna
Seneca Falls Specialty Company
21 McCoord Woods Drive
Fairport, NY 14450

ecc:
Mr. Ray Larkin
Environmental Consultant
9 Hawthorne Court
North Kingstown, RI 02852-4646

Ms. Denise Radtke
NYS Dept of Environmental Conservation
625 Broadway
Albany, New York 12233-7252

Ms. Marzi Sharfaei
ARCADIS U.S., Inc.
2800 West Higgins Road, 10th Floor
Hoffman Estates, Illinois 60169

Mr. Daniel Lang
ARCADIS U.S., Inc.
855 Route 146, Suite 210
Clifton Park, NY 12065

Ms. Patricia Jones
Seneca County Industrial Development Agency
1 DiPronio Drive
Waterloo, NY 13165-1681

Mr. Matt Dukat
H.P. Neun
100 Dunn Road
Lyons, NY 14489

Ms. Melissa A. Menetti
New York State Department of Health
547 River Street
Troy, NY 12180

Mr. Dale Carpenter
U.S. Environmental Protection Agency
290 Broadway
New York, NY 10007-1866

Mr. Sam Ezekwo
USEPA, Region 2
Div. of Environ. Planning and Protection
290 Broadway, 22nd Floor
New York, NY 10007-1866

March 2013 Semi-Annual Groundwater Sampling

On February 26-27, 2013[1], ARCADIS U.S., Inc. measured groundwater levels and deployed passive diffusion bags (PDBs) in select site monitoring wells (Figure 1). Prior to PDB deployment, both depths to water and well bottom were measured. PDBs were installed at depths consistent with the middle of the well screen and remained in the wells for approximately four weeks.

On March 26, 2013, the PDBs were retrieved and groundwater samples were collected for volatile organic compound (VOC) analysis. Samples were collected from six shallow monitoring wells (MW-22 through MW-26 and MW-29), one weathered bedrock monitoring well (MW-BR-06), and one bedrock monitoring well (MW-BR-05) and shipped overnight to TestAmerica Laboratories, Inc. of Buffalo, NY. The samples were analyzed for VOCs using United States Environmental Protection Agency Method 8260B. Data Validation Services, Inc. of North Creek, New York performed third-party data validation. Sample results are usable as reported or with minor qualification (Attachment). After groundwater samples were collected in March, new PDBs were deployed for retrieval during the next sampling event in September.

Table 1 provides depth to water measurements. Table 2 provides the March 2013 groundwater analytical and quality assurance/quality control (one trip blank and one duplicate) results. VOC concentrations in the March 2013 samples were compared to the New York State Department of Environmental Conservation (NYSDEC) Class GA Standards.

- Trichloroethene (TCE) and/or *cis*-1,2-dichloroethene (*cis*-1,2-DCE) were reported at concentrations greater than the NYSDEC Class GA Standard of 5 micrograms per liter (µg/l) in samples from monitoring wells MW-22 through MW-26, MW-29, and MW-BR-06 and in the duplicate sample from monitoring well MW-25.
- Vinyl chloride was reported in the samples from monitoring wells MW-26 and MW-29 at concentrations greater than the NYSDEC Class GA Standard of 2 µg/l.
- 1,1-dichloroethane (1,1-DCA) was reported at concentrations greater than the NYSDEC Class GA Standard of 5 µg/l in the sample and duplicate from monitoring well MW-25.

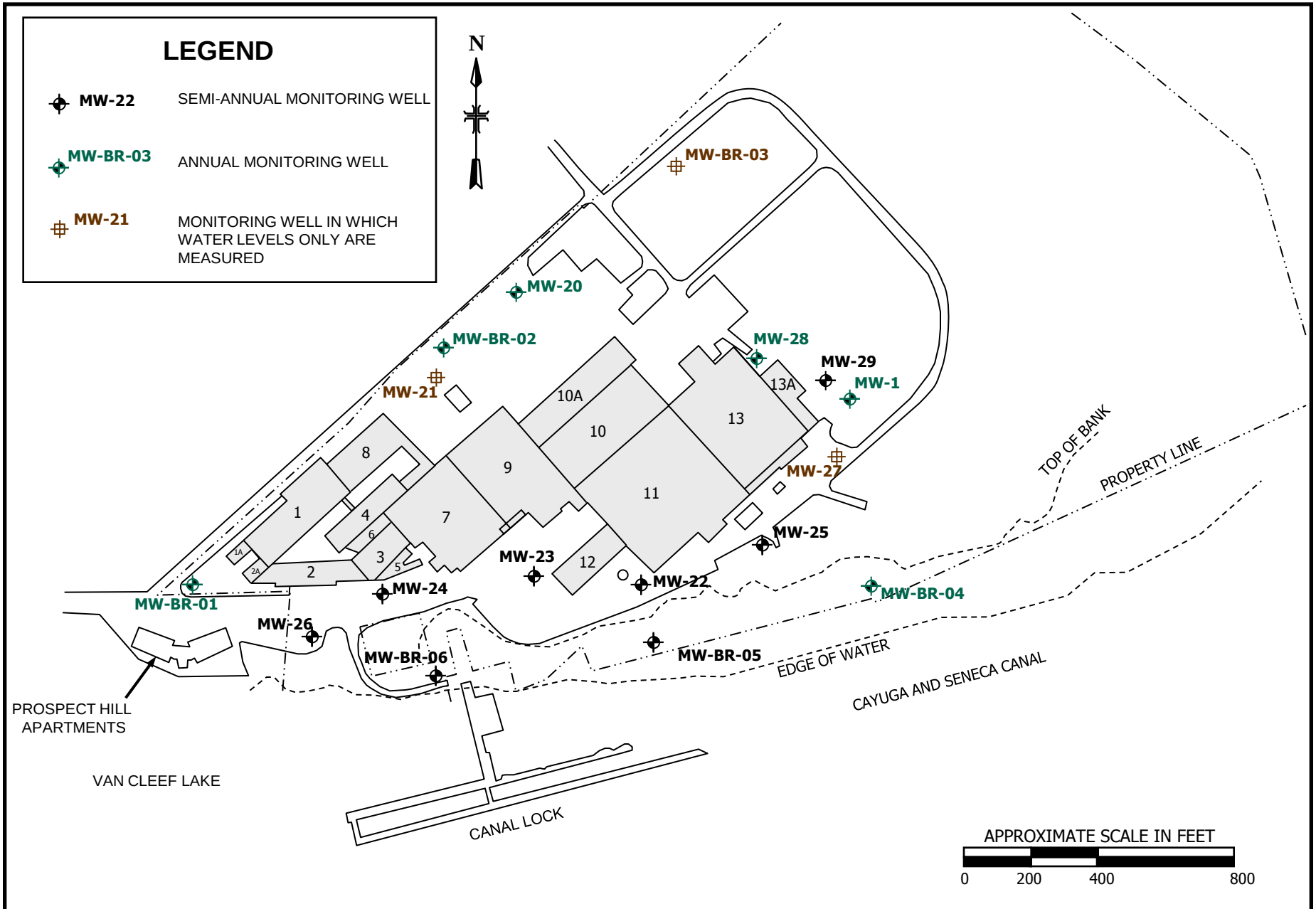
Figures
Figure 1 – Monitoring Well Locations

Tables
Table 1 – Depth to Water Measurements
Table 2 – Groundwater Analytical Results (March 2013)

Attachment
Data Validation Report

[1] The water level was measured and a passive diffusion bag was deployed at MW-22 on February 27 because this well was not accessible on February 26 when water levels were measured in the other wells.

Figures



ARCADIS
Infrastructure · Water · Environment · Buildings

FORMER PHILIPS DISPLAY COMPONENTS FACILITY
SENECA FALLS, NEW YORK

MONITORING WELL LOCATIONS

FIGURE 1

Tables

Table 1
Depth to Water Measurements
Former Philips Display Components Facility
Seneca Falls, New York

Well Number	Datum Elevation	Depth to Water (feet)	Water Level Elevation (feet AMSL)
MW-1	460.83	8.81	452.02
MW-20	463.42	1.23	462.19
MW-21	467.39	2.86	464.53
MW-22	460.77	6.17	454.60
MW-23	460.59	2.51	458.08
MW-24	462.76	3.51	459.25
MW-25	460.74	4.00	456.74
MW-26	458.80	5.54	453.26
MW-27	460.45	6.73	453.72
MW-28	461.26	6.76	454.50
MW-29	459.89	7.77	452.12
MW-BR-01	462.64	34.55	428.09
MW-BR-02	467.87	30.97	436.90
MW-BR-03	457.06	28.25	428.81
MW-BR-04	396.39	NA	Artesian
MW-BR-05	401.34	22.10	379.24
MW-BR-06	436.30	37.56	398.74

Notes:

AMSL - Above mean sea level

MW-22 depth to water measured on February 27, 2013; all other measurements recorded on February 26, 2013.

Table 2
Groundwater Analytical Results (March 2013)
Former Philips Display Components Facility
Seneca Falls, New York

VOCs	CAS #	NYS Class GA Standard	MW-22	MW-23	MW-24	MW-25	MW-25 DUPLICATE	MW-26	MW-29	MW-BR-05	MW-BR-06	TRIP BLANK
1,1,1-Trichloroethane	71-55-6	5	5.0 U	200 U	2000 U	**1.8 J**	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	79-00-5	1	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	75-34-3	5	5.0 U	200 U	2000 U	**14**	**15 J**	**1.3 J**	20 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	75-35-4	5	5.0 U	200 U	2000 U	**2.4 J**	**2.5 J**	**1.3 J**	20 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	107-06-2	0.6	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	78-87-5	1	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
2-Hexanone	591-78-6	50	10 U	400 U	4000 U	20 U	40 U	20 U	40 U	10 U	10 U	10 U
Acetone	67-64-1	50	10 U	400 U	4000 U	20 U	40 U	20 U	40 U	10 U	10 U	10 U
Benzene	71-43-2	1	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	75-27-4	50	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Bromoform	75-25-2	50	5.0 UJ	200 UJ	2000 UJ	10 UJ	20 UJ	10 UJ	20 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Bromomethane	74-83-9	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	75-15-0	60	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	56-23-5	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Chloroethane	75-00-3	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Chloroform	67-66-3	7	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Chloromethane	74-87-3	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	156-59-2	5	**8.9**	**290**	**20000**	**180**	**190**	**170**	**230**	5.0 U	**7.1**	5.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	124-48-1	50	5.0 UJ	200 UJ	2000 UJ	10 UJ	20 UJ	10 UJ	20 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Dichlorodifluoromethane	75-71-8	5	5.0 U	200 U	2000 U	10 U	20 U	10 UJ	20 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	100-41-4	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	78-93-3	50	10 U	400 U	4000 U	20 U	40 U	20 U	40 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	108-10-1	5	10 U	400 U	4000 U	20 U	40 U	20 U	40 U	10 U	10 U	10 U
Methylene Chloride	75-09-2	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Styrene	100-42-5	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	127-18-4	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Toluene	108-88-3	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	156-60-5	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	5.0 UJ	200 UJ	2000 UJ	10 UJ	20 UJ	10 UJ	20 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Trichloroethene	79-01-6	5	**6.5**	**1800**	2000 U	**8.8 J**	**8.7 J**	**96**	20 U	5.0 U	**6.4**	5.0 U
Trichlorofluoromethane	75-69-4	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	108-05-4	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	75-01-4	2	5.0 U	200 U	2000 U	10 U	20 U	**4.2 J**	**21**	5.0 U	5.0 U	5.0 U
Xylenes, Total	1330-20-7	5	5.0 U	200 U	2000 U	10 U	20 U	10 U	20 U	5.0 U	5.0 U	5.0 U

NOTES:
Bolded results were detected or estimated.
Shaded results were greater than the NYSDEC Class GA Standards
All values are shown in units of micrograms per liter (ug/L).

U - Not detected. Reporting limit shown.
J - Estimated
NJ - Tentative in identification and estimated in value because of poor mass spectral quality

Data Validation Report

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

May 17, 2013

Mark Flusche
ARCADIS Malcolm Pirnie, Inc.
855 Route 146 Suite 210
Clifton Park, NY 12065

RE: Validation of GTE-OSI--Seneca Falls, NY Site Data Package-Groundwaters
TAL-Buffalo SDG No. 480-35076-1

Dear Mr. Flusche:

Review has been completed for the data package generated by TestAmerica Laboratories that pertains to samples collected 03/26/13 at the GTE-OSI--Seneca Falls, NY site. Eight aqueous samples, a field duplicate, and a trip blank were analyzed for volatiles by USEPA SW846 method 8260B.

Data validation was performed with guidance from the USEPA Region II validation SOP HW-6, the USEPA National Functional Guidelines for CLP Organic Data Review, and the specific requirements of the analytical methodologies. The data packages were reviewed for the following items:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate Standard Recoveries
* Matrix Spike Evaluations
* Blind Field Duplicate Correlations
* Blank Contamination
* Laboratory Control Samples (LCSs)
* Calibration Standard Responses
* Internal Standard Responses
* Method Compliance
* Sample Results Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results of validated sample analytes are substantiated by the raw data, and generated in compliance with project requirements.

In summary, samples were generally processed in compliance with stated protocols. Field sample results are usable either as reported or with minor qualification,

Copies of the sample identifications and laboratory case narrative are attached to this text, and should be reviewed in conjunction with this report. Also included are laboratory results forms with recommended qualifications applied in red ink.

VOA Analyses by EPA 8260B

Matrix spikes (MSs) of MW-24 show recoveries and correlations that are within laboratory guidelines for the eleven evaluated analytes. LCS recoveries are within required ranges. The analytical protocol requires that all analytes be evaluated in MSs and LCSs.

The blind field duplicate correlations of MW-25 are acceptable.

Calibration standards show acceptable responses, with the exceptions of those for the following compounds in the continuing calibration standards associated with the indicated samples:

- bromomform, dibromochloromethane, and trans-1,3-dichloropropene (25%D to 50%D) in all samples
- dichlorodifluoromethane (27%D) in MW-26

Surrogate and internal standard responses are within required range, and holding times were met. Blanks show no contamination.

Some of the samples were processed at initial dilution due to high concentrations of target analytes. Reporting limits for non-detected analytes in those samples are therefore proportionally elevated.

Dilution factors are present on the run logs and raw instrument data, but the actual sample volumes used to derive the dilution factors used in the calculations are not recorded, and the dilution factors therefore cannot be independently verified.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

CLIENT and LABORATORY SAMPLE IDs
and
LABORATORY CASE NARRATIVE

SAMPLE SUMMARY

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-35076-1	TRIP BLANK	Water	03/22/2013 1200	03/27/2013 0900
480-35076-2	MW-22	Water	03/26/2013 1315	03/27/2013 0900
480-35076-3	MW-23	Water	03/26/2013 1525	03/27/2013 0900
480-35076-4	MW-24	Water	03/26/2013 1515	03/27/2013 0900
480-35076-4MS	MW-24	Water	03/26/2013 1515	03/27/2013 0900
480-35076-4MSD	MW-24	Water	03/26/2013 1515	03/27/2013 0900
480-35076-5	MW-25	Water	03/26/2013 1300	03/27/2013 0900
480-35076-6	MW-26	Water	03/26/2013 1500	03/27/2013 0900
480-35076-7	MW-29	Water	03/26/2013 1230	03/27/2013 0900
480-35076-8	MW-BR-05	Water	03/26/2013 1605	03/27/2013 0900
480-35076-9	MW-BR-06	Water	03/26/2013 1445	03/27/2013 0900
480-35076-10	DUPLICATE	Water	03/26/2013 1200	03/27/2013 0900

Job Narrative
480-35076-1

Comments
No additional comments.

Receipt
The samples were received on 3/27/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

GC/MS VOA
Method(s) 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: DUPLICATE (480-35076-10), MW-23 (480-35076-3), MW-24 (480-35076-4), MW-24 (480-35076-4 MS), MW-24 (480-35076-4 MSD), MW-25 (480-35076-5), MW-29 (480-35076-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-26 (480-35076-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

QUALIFIED SAMPLE RESULTS FORMS

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-22**

Lab Sample ID: 480-35076-2
Client Matrix: Water

Date Sampled: 03/26/2013 1315
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5057.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1526			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1526				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	5.0
1,1,2,2-Tetrachloroethane	ND		0.21	5.0
1,1,2-Trichloroethane	ND		0.23	5.0
1,1-Dichloroethane	ND		0.38	5.0
1,1-Dichloroethene	ND		0.29	5.0
1,2-Dichloroethane	ND		0.21	5.0
1,2-Dichloropropane	ND		0.72	5.0
2-Hexanone	ND		1.2	10
Methyl ethyl ketone (MEK)	ND		1.3	10
Methyl isobutyl ketone (MIBK)	ND		2.1	10
Acetone	ND		3.0	10
Benzene	ND		0.41	5.0
Bromodichloromethane	ND		0.39	5.0
Bromoform	ND	UJ	0.26	5.0
Bromomethane	ND		0.69	5.0
Carbon disulfide	ND		0.19	5.0
Carbon tetrachloride	ND		0.27	5.0
Chlorobenzene	ND		0.75	5.0
Dibromochloromethane	ND	UJ	0.32	5.0
Chloroethane	ND		0.32	5.0
Chloroform	ND		0.34	5.0
Chloromethane	ND		0.35	5.0
cis-1,2-Dichloroethene	8.9		0.81	5.0
cis-1,3-Dichloropropene	ND		0.36	5.0
Dichlorodifluoromethane	ND		0.68	5.0
Ethylbenzene	ND		0.74	5.0
Methylene Chloride	ND		0.44	5.0
Styrene	ND		0.73	5.0
Tetrachloroethene	ND		0.36	5.0
Toluene	ND		0.51	5.0
trans-1,2-Dichloroethene	ND		0.90	5.0
trans-1,3-Dichloropropene	ND	UJ	0.37	5.0
Trichloroethene	6.5		0.46	5.0
Trichlorofluoromethane	ND		0.88	5.0
Vinyl chloride	ND		0.90	5.0
Xylenes, Total	ND		0.66	5.0
Vinyl acetate	ND		0.85	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	93		71 - 126
4-Bromofluorobenzene (Surr)	87		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-23**

Lab Sample ID: 480-35076-3
Client Matrix: Water

Date Sampled: 03/26/2013 1525
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5058.D
Dilution:	40			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1550			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1550				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		33	200
1,1,2,2-Tetrachloroethane	ND		8.4	200
1,1,2-Trichloroethane	ND		9.2	200
1,1-Dichloroethane	ND		15	200
1,1-Dichloroethene	ND		12	200
1,2-Dichloroethane	ND		8.4	200
1,2-Dichloropropane	ND		29	200
2-Hexanone	ND		50	400
Methyl ethyl ketone (MEK)	ND		53	400
Methyl isobutyl ketone (MIBK)	ND		84	400
Acetone	ND		120	400
Benzene	ND		16	200
Bromodichloromethane	ND		16	200
Bromoform	ND	UJ	10	200
Bromomethane	ND		28	200
Carbon disulfide	ND		7.6	200
Carbon tetrachloride	ND		11	200
Chlorobenzene	ND		30	200
Dibromochloromethane	ND	UJ	13	200
Chloroethane	ND		13	200
Chloroform	ND		14	200
Chloromethane	ND		14	200
cis-1,2-Dichloroethene	290		32	200
cis-1,3-Dichloropropene	ND		14	200
Dichlorodifluoromethane	ND		27	200
Ethylbenzene	ND		30	200
Methylene Chloride	ND		18	200
Styrene	ND		29	200
Tetrachloroethene	ND		14	200
Toluene	ND		20	200
trans-1,2-Dichloroethene	ND		36	200
trans-1,3-Dichloropropene	ND	UJ	15	200
Trichloroethene	1800		18	200
Trichlorofluoromethane	ND		35	200
Vinyl chloride	ND		36	200
Xylenes, Total	ND		26	200
Vinyl acetate	ND		34	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-24**

Lab Sample ID: 480-35076-4
Client Matrix: Water

Date Sampled: 03/26/2013 1515
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5059.D
Dilution:	400			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1614			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1614				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		330	2000
1,1,2,2-Tetrachloroethane	ND		84	2000
1,1,2-Trichloroethane	ND		92	2000
1,1-Dichloroethane	ND		150	2000
1,1-Dichloroethene	ND		120	2000
1,2-Dichloroethane	ND		84	2000
1,2-Dichloropropane	ND		290	2000
2-Hexanone	ND		500	4000
Methyl ethyl ketone (MEK)	ND		530	4000
Methyl isobutyl ketone (MIBK)	ND		840	4000
Acetone	ND		1200	4000
Benzene	ND		160	2000
Bromodichloromethane	ND		160	2000
Bromoform	ND	UJ	100	2000
Bromomethane	ND		280	2000
Carbon disulfide	ND		76	2000
Carbon tetrachloride	ND		110	2000
Chlorobenzene	ND		300	2000
Dibromochloromethane	ND	UJ	130	2000
Chloroethane	ND		130	2000
Chloroform	ND		140	2000
Chloromethane	ND		140	2000
cis-1,2-Dichloroethene	20000		320	2000
cis-1,3-Dichloropropene	ND		140	2000
Dichlorodifluoromethane	ND		270	2000
Ethylbenzene	ND		300	2000
Methylene Chloride	ND		180	2000
Styrene	ND		290	2000
Tetrachloroethene	ND		140	2000
Toluene	ND		200	2000
trans-1,2-Dichloroethene	ND		360	2000
trans-1,3-Dichloropropene	ND	UJ	150	2000
Trichloroethene	ND		180	2000
Trichlorofluoromethane	ND		350	2000
Vinyl chloride	ND		360	2000
Xylenes, Total	ND		260	2000
Vinyl acetate	ND		340	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	94		71 - 126
4-Bromofluorobenzene (Surr)	86		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-25**

Lab Sample ID: 480-35076-5
Client Matrix: Water

Date Sampled: 03/26/2013 1300
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5062.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1725			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1725				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.8	J	1.6	10
1,1,2,2-Tetrachloroethane	ND		0.42	10
1,1,2-Trichloroethane	ND		0.46	10
1,1-Dichloroethane	14		0.76	10
1,1-Dichloroethene	2.4	J	0.58	10
1,2-Dichloroethane	ND		0.42	10
1,2-Dichloropropane	ND		1.4	10
2-Hexanone	ND		2.5	20
Methyl ethyl ketone (MEK)	ND		2.6	20
Methyl isobutyl ketone (MIBK)	ND		4.2	20
Acetone	ND		6.0	20
Benzene	ND		0.82	10
Bromodichloromethane	ND		0.78	10
Bromoform	ND	UJ	0.52	10
Bromomethane	ND		1.4	10
Carbon disulfide	ND		0.38	10
Carbon tetrachloride	ND		0.54	10
Chlorobenzene	ND		1.5	10
Dibromochloromethane	ND	UJ	0.64	10
Chloroethane	ND		0.64	10
Chloroform	ND		0.68	10
Chloromethane	ND		0.70	10
cis-1,2-Dichloroethene	180		1.6	10
cis-1,3-Dichloropropene	ND		0.72	10
Dichlorodifluoromethane	ND		1.4	10
Ethylbenzene	ND		1.5	10
Methylene Chloride	ND		0.88	10
Styrene	ND		1.5	10
Tetrachloroethene	ND		0.72	10
Toluene	ND		1.0	10
trans-1,2-Dichloroethene	ND		1.8	10
trans-1,3-Dichloropropene	ND	UJ	0.74	10
Trichloroethene	8.8	J	0.92	10
Trichlorofluoromethane	ND		1.8	10
Vinyl chloride	ND		1.8	10
Xylenes, Total	ND		1.3	10
Vinyl acetate	ND		1.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	89		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-26**

Lab Sample ID: 480-35076-6
Client Matrix: Water

Date Sampled: 03/26/2013 1500
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109803	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5089.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2013 0514			Final Weight/Volume:	5 mL
Prep Date:	03/29/2013 0514				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.6	10
1,1,2,2-Tetrachloroethane	ND		0.42	10
1,1,2-Trichloroethane	ND		0.46	10
1,1-Dichloroethane	1.3	J	0.76	10
1,1-Dichloroethene	1.3	J	0.58	10
1,2-Dichloroethane	ND		0.42	10
1,2-Dichloropropane	ND		1.4	10
2-Hexanone	ND		2.5	20
Methyl ethyl ketone (MEK)	ND		2.6	20
Methyl isobutyl ketone (MIBK)	ND		4.2	20
Acetone	ND		6.0	20
Benzene	ND		0.82	10
Bromodichloromethane	ND		0.78	10
Bromoform	ND	UJ	0.52	10
Bromomethane	ND		1.4	10
Carbon disulfide	ND		0.38	10
Carbon tetrachloride	ND		0.54	10
Chlorobenzene	ND		1.5	10
Dibromochloromethane	ND	UJ	0.64	10
Chloroethane	ND		0.64	10
Chloroform	ND		0.68	10
Chloromethane	ND		0.70	10
cis-1,2-Dichloroethene	170		1.6	10
cis-1,3-Dichloropropene	ND		0.72	10
Dichlorodifluoromethane	ND	UJ	1.4	10
Ethylbenzene	ND		1.5	10
Methylene Chloride	ND		0.88	10
Styrene	ND		1.5	10
Tetrachloroethene	ND		0.72	10
Toluene	ND		1.0	10
trans-1,2-Dichloroethene	ND		1.8	10
trans-1,3-Dichloropropene	ND	UJ	0.74	10
Trichloroethene	96		0.92	10
Trichlorofluoromethane	ND		1.8	10
Vinyl chloride	4.2	J	1.8	10
Xylenes, Total	ND		1.3	10
Vinyl acetate	ND		1.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-29**

Lab Sample ID: 480-35076-7
Client Matrix: Water

Date Sampled: 03/26/2013 1230
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5064.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1812			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1812				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	20
1,1,2,2-Tetrachloroethane	ND		0.84	20
1,1,2-Trichloroethane	ND		0.92	20
1,1-Dichloroethane	ND		1.5	20
1,1-Dichloroethene	ND		1.2	20
1,2-Dichloroethane	ND		0.84	20
1,2-Dichloropropane	ND		2.9	20
2-Hexanone	ND		5.0	40
Methyl ethyl ketone (MEK)	ND		5.3	40
Methyl isobutyl ketone (MIBK)	ND		8.4	40
Acetone	ND		12	40
Benzene	ND		1.6	20
Bromodichloromethane	ND		1.6	20
Bromoform	ND	UJ	1.0	20
Bromomethane	ND		2.8	20
Carbon disulfide	ND		0.76	20
Carbon tetrachloride	ND		1.1	20
Chlorobenzene	ND		3.0	20
Dibromochloromethane	ND	UJ	1.3	20
Chloroethane	ND		1.3	20
Chloroform	ND		1.4	20
Chloromethane	ND		1.4	20
cis-1,2-Dichloroethene	230		3.2	20
cis-1,3-Dichloropropene	ND		1.4	20
Dichlorodifluoromethane	ND		2.7	20
Ethylbenzene	ND		3.0	20
Methylene Chloride	ND		1.8	20
Styrene	ND		2.9	20
Tetrachloroethene	ND		1.4	20
Toluene	ND		2.0	20
trans-1,2-Dichloroethene	ND		3.6	20
trans-1,3-Dichloropropene	ND	UJ	1.5	20
Trichloroethene	ND		1.8	20
Trichlorofluoromethane	ND		3.5	20
Vinyl chloride	21		3.6	20
Xylenes, Total	ND		2.6	20
Vinyl acetate	ND		3.4	20

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	88		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-BR-05**

Lab Sample ID: 480-35076-8
Client Matrix: Water

Date Sampled: 03/26/2013 1605
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5065.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1836			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1836				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	5.0
1,1,2,2-Tetrachloroethane	ND		0.21	5.0
1,1,2-Trichloroethane	ND		0.23	5.0
1,1-Dichloroethane	ND		0.38	5.0
1,1-Dichloroethene	ND		0.29	5.0
1,2-Dichloroethane	ND		0.21	5.0
1,2-Dichloropropane	ND		0.72	5.0
2-Hexanone	ND		1.2	10
Methyl ethyl ketone (MEK)	ND		1.3	10
Methyl isobutyl ketone (MIBK)	ND		2.1	10
Acetone	ND		3.0	10
Benzene	ND		0.41	5.0
Bromodichloromethane	ND		0.39	5.0
Bromoform	ND	UJ	0.26	5.0
Bromomethane	ND		0.69	5.0
Carbon disulfide	ND		0.19	5.0
Carbon tetrachloride	ND		0.27	5.0
Chlorobenzene	ND		0.75	5.0
Dibromochloromethane	ND	UJ	0.32	5.0
Chloroethane	ND		0.32	5.0
Chloroform	ND		0.34	5.0
Chloromethane	ND		0.35	5.0
cis-1,2-Dichloroethene	ND		0.81	5.0
cis-1,3-Dichloropropene	ND		0.36	5.0
Dichlorodifluoromethane	ND		0.68	5.0
Ethylbenzene	ND		0.74	5.0
Methylene Chloride	ND		0.44	5.0
Styrene	ND		0.73	5.0
Tetrachloroethene	ND		0.36	5.0
Toluene	ND		0.51	5.0
trans-1,2-Dichloroethene	ND		0.90	5.0
trans-1,3-Dichloropropene	ND	UJ	0.37	5.0
Trichloroethene	ND		0.46	5.0
Trichlorofluoromethane	ND		0.88	5.0
Vinyl chloride	ND		0.90	5.0
Xylenes, Total	ND		0.66	5.0
Vinyl acetate	ND		0.85	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **MW-BR-06**

Lab Sample ID: 480-35076-9
Client Matrix: Water

Date Sampled: 03/26/2013 1445
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5066.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1900			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1900				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	5.0
1,1,2,2-Tetrachloroethane	ND		0.21	5.0
1,1,2-Trichloroethane	ND		0.23	5.0
1,1-Dichloroethane	ND		0.38	5.0
1,1-Dichloroethene	ND		0.29	5.0
1,2-Dichloroethane	ND		0.21	5.0
1,2-Dichloropropane	ND		0.72	5.0
2-Hexanone	ND		1.2	10
Methyl ethyl ketone (MEK)	ND		1.3	10
Methyl isobutyl ketone (MIBK)	ND		2.1	10
Acetone	ND		3.0	10
Benzene	ND		0.41	5.0
Bromodichloromethane	ND		0.39	5.0
Bromoform	ND	UJ	0.26	5.0
Bromomethane	ND		0.69	5.0
Carbon disulfide	ND		0.19	5.0
Carbon tetrachloride	ND		0.27	5.0
Chlorobenzene	ND		0.75	5.0
Dibromochloromethane	ND	UJ	0.32	5.0
Chloroethane	ND		0.32	5.0
Chloroform	ND		0.34	5.0
Chloromethane	ND		0.35	5.0
cis-1,2-Dichloroethene	7.1		0.81	5.0
cis-1,3-Dichloropropene	ND		0.36	5.0
Dichlorodifluoromethane	ND		0.68	5.0
Ethylbenzene	ND		0.74	5.0
Methylene Chloride	ND		0.44	5.0
Styrene	ND		0.73	5.0
Tetrachloroethene	ND		0.36	5.0
Toluene	ND		0.51	5.0
trans-1,2-Dichloroethene	ND		0.90	5.0
trans-1,3-Dichloropropene	ND	UJ	0.37	5.0
Trichloroethene	6.4		0.46	5.0
Trichlorofluoromethane	ND		0.88	5.0
Vinyl chloride	ND		0.90	5.0
Xylenes, Total	ND		0.66	5.0
Vinyl acetate	ND		0.85	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	93		71 - 126
4-Bromofluorobenzene (Surr)	88		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **DUPLICATE**

Lab Sample ID: 480-35076-10
Client Matrix: Water

Date Sampled: 03/26/2013 1200
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5067.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1924			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1924				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	20
1,1,2,2-Tetrachloroethane	ND		0.84	20
1,1,2-Trichloroethane	ND		0.92	20
1,1-Dichloroethane	15	J	1.5	20
1,1-Dichloroethene	2.5	J	1.2	20
1,2-Dichloroethane	ND		0.84	20
1,2-Dichloropropane	ND		2.9	20
2-Hexanone	ND		5.0	40
Methyl ethyl ketone (MEK)	ND		5.3	40
Methyl isobutyl ketone (MIBK)	ND		8.4	40
Acetone	ND		12	40
Benzene	ND		1.6	20
Bromodichloromethane	ND		1.6	20
Bromoform	ND	UJ	1.0	20
Bromomethane	ND		2.8	20
Carbon disulfide	ND		0.76	20
Carbon tetrachloride	ND		1.1	20
Chlorobenzene	ND		3.0	20
Dibromochloromethane	ND	UJ	1.3	20
Chloroethane	ND		1.3	20
Chloroform	ND		1.4	20
Chloromethane	ND		1.4	20
cis-1,2-Dichloroethene	190		3.2	20
cis-1,3-Dichloropropene	ND		1.4	20
Dichlorodifluoromethane	ND		2.7	20
Ethylbenzene	ND		3.0	20
Methylene Chloride	ND		1.8	20
Styrene	ND		2.9	20
Tetrachloroethene	ND		1.4	20
Toluene	ND		2.0	20
trans-1,2-Dichloroethene	ND		3.6	20
trans-1,3-Dichloropropene	ND	UJ	1.5	20
Trichloroethene	8.7	J	1.8	20
Trichlorofluoromethane	ND		3.5	20
Vinyl chloride	ND		3.6	20
Xylenes, Total	ND		2.6	20
Vinyl acetate	ND		3.4	20

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	89		73 - 120

Client: Malcolm Pirnie, Inc. Invoice to Arcadis

Job Number: 480-35076-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-35076-1
Client Matrix: Water

Date Sampled: 03/22/2013 1200
Date Received: 03/27/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-109630	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N5056.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/28/2013 1502			Final Weight/Volume:	5 mL
Prep Date:	03/28/2013 1502				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	5.0
1,1,2,2-Tetrachloroethane	ND		0.21	5.0
1,1,2-Trichloroethane	ND		0.23	5.0
1,1-Dichloroethane	ND		0.38	5.0
1,1-Dichloroethene	ND		0.29	5.0
1,2-Dichloroethane	ND		0.21	5.0
1,2-Dichloropropane	ND		0.72	5.0
2-Hexanone	ND		1.2	10
Methyl ethyl ketone (MEK)	ND		1.3	10
Methyl isobutyl ketone (MIBK)	ND		2.1	10
Acetone	ND		3.0	10
Benzene	ND		0.41	5.0
Bromodichloromethane	ND		0.39	5.0
Bromoform	ND	UJ	0.26	5.0
Bromomethane	ND		0.69	5.0
Carbon disulfide	ND		0.19	5.0
Carbon tetrachloride	ND		0.27	5.0
Chlorobenzene	ND		0.75	5.0
Dibromochloromethane	ND	UJ	0.32	5.0
Chloroethane	ND		0.32	5.0
Chloroform	ND		0.34	5.0
Chloromethane	ND		0.35	5.0
cis-1,2-Dichloroethene	ND		0.81	5.0
cis-1,3-Dichloropropene	ND		0.36	5.0
Dichlorodifluoromethane	ND		0.68	5.0
Ethylbenzene	ND		0.74	5.0
Methylene Chloride	ND		0.44	5.0
Styrene	ND		0.73	5.0
Tetrachloroethene	ND		0.36	5.0
Toluene	ND		0.51	5.0
trans-1,2-Dichloroethene	ND		0.90	5.0
trans-1,3-Dichloropropene	ND	UJ	0.37	5.0
Trichloroethene	ND		0.46	5.0
Trichlorofluoromethane	ND		0.88	5.0
Vinyl chloride	ND		0.90	5.0
Xylenes, Total	ND		0.66	5.0
Vinyl acetate	ND		0.85	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	89		73 - 120