ANNUAL PROGRESS REPORT

PAS OSWEGO SUPERFUND SITE

OSWEGO, NEW YORK

July 2015

Submitted By:

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052

de maximis, inc.
450 Montbrook Lane
Knoxville, TN 37919
865-691-5052 phone
865-691-6485 fax

Via Fedex

July 30, 2015

Ms. Patricia Pierre
Central New York Remedial Section
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region II
20th Floor, 290 Broadway
New York, New York 10007

Subject: ***Annual Progress Report for July 2014 through June 2015***
Operations, Maintenance and Long Term-Monitoring Activities
Pollution Abatement Services (PAS) Site, Oswego, NY

Dear Patricia:

This Annual Progress Report (Annual Report) is submitted pursuant to *Consent Decree 98-CV0112-NPMGJD* and details the operation, maintenance, and long-term monitoring activities at the Pollution Abatement Services (PAS) Site (Site) in Oswego, New York (Consent Decree). This Annual Report covers the period July 1, 2014 through June 30, 2015, and is consistent with the requirements of Paragraph 30 of the Consent Decree. Our next annual progress report will be submitted on or before July 31, 2016 and will document work completed between the period July 1, 2015 and June 30, 2016.

The data for this report are presented in three attachments as discussed below. Attachment I presents graphs, figures and tables documenting long-term monitoring trends for the Site. Graphs showing slurry wall well pair groundwater elevations (Section I-A) and semi-annual groundwater and leachate sampling results (Section I-B) are included in Attachment I. In addition, figures showing groundwater potentiometric surface contours and vertical hydraulic gradients for each quarter of the reporting period are included in Section I-C of Attachment I. Tables showing the leachate volume removed from the Site LCW wells are provided in Section I-D. Attachment II of this report contains a description of the actions completed under the Consent Decree for each quarter of this reporting period. Site maintenance and monitoring records and leachate removal and disposal records for each quarter of the reporting period are also included in Attachment II. The PAS Site Institutional Control Implementation Plan Annual Certification is provided in Section B-5 of Attachment II and documents that the requirement of the Institutional Control Plan were satisfied during this reporting period. Finally, Attachment III of this report provides a description and schedule of the actions planned during the next reporting period (July 2015 - June 2016).

SUMMARY OF LEACHATE REMOVAL ACTIVITIES

During this reporting period PAS leachate was treated and disposed at the City of Oswego Eastside Wastewater Treatment Facility, Oswego, New York through March 2015 and the City of Auburn after March 2015. A total of 180,755 gallons of leachate were removed during this reporting period (Attachment I-D, Table 1). PAS performed a treatability study and additional testing under an agreement with the City of Oswego to determine the ability to meet the very low revised pre-treatment standards for Arsenic and Selenium issued by the City of Oswego. The data associated with the treatability study and additional testing are included in the 4th quarterly POTW report submitted to the City of Oswego Attachment D-3. Subsequent to the testing, PAS notified the City of Oswego that accurate testing for the low pre-treatment levels was unachievable under approved EPA methods and PAS would discontinue discharge into the City of Oswego Wastewater Treatment Facility. In accordance with the Consent Decree and the approved Operation Monitoring and Maintenance Plan for the PAS Site, leachate was transported to the City of Auburn in March 2015. The City of Oswego is retained as the alternate disposal facility in the event that the City of Oswego obtains revised pre-treatment standards.

HYDRAULIC CONTROL OF SLURRY WALL CONTAINMENT SYSTEM

The effectiveness of the hydraulic control of the slurry wall containment system is evaluated based on a review of water level elevations used to determine hydraulic gradients, both horizontal and vertical, around and beneath the containment system. Its effectiveness is also evaluated by determining whether the water level elevations are maintained below the top of the slurry wall at its downgradient extent. Horizontal gradients around the containment system are calculated using monthly water level elevations recorded at the SWW-series monitoring wells which are located around the perimeter of the slurry wall as shown in Attachment I-A. Vertical gradients beneath the containment system are calculated based on the difference in the water level potentiometric surface in the overburden and the bedrock monitoring wells located in the vicinity of the containment system. Figures showing the potentiometric water surfaces for both the bedrock and overburden monitoring wells for each of the quarterly water level monitoring events are presented in Attachment I-C (Set 3).

The water level data for the SWW wells continue to show that the horizontal gradients at well pairs SWW-5/6 and SWW-11/12 are influenced by both leachate pumping and seasonal regional water level elevations, while horizontal gradients at other SWW well pairs are primarily affected by regional water level elevations outside the containment system. During the reporting period, the water levels at SWW-5 and SWW-11, the two interior SWW wells at the downgradient extent of the slurry wall, continued to remain stable with water level elevations inside dropping slightly over the year and remaining well below the top of the slurry wall. The trend lines presented in the SWW-5/6 and the SWW-11/12 charts show continued declines in average elevation inside versus the elevations outside. The charts indicate that leachate pumping was effectively maintaining hydraulic control to the degree practicable, although low seasonal levels outside the containment system influence the gradients.

The vertical gradient figures shown in Attachment I-C indicate that vertical gradients are also seasonally affected by the regional water levels outside the containment system. The vertical hydraulic gradient plots presented show upward gradient trends over most of the Site during the spring, summer and winter periods due to stable water levels inside the containment system, and to higher regional water levels outside the containment system. Vertical gradients typically trend downward during late summer when regional water levels are relatively low. However, since the summer of 2013, upward gradients have been present in the area around LCW-4 and the area around LCW-1 and LCW-2 indicating continued hydraulic control of the Site. We note that the extent of the downward gradients identified in the November 2014 gradient figure appeared anomalous when compared to other past November gradients. This will be reviewed closely in 2016 for any trends.

The routine elevation monitoring conducted during this reporting period indicates hydraulic control of the slurry wall containment system is being maintained through routine operation of the leachate collection system. This observation remains consistent with observations reported in previous annual reports.

LONG-TERM GROUNDWATER MONITORING RESULTS

The long-term groundwater quality monitoring results and trends for the downgradient monitoring wells LR-6, LR-8 and M-21 are presented graphically for the period from May 1998 to May 2015 in Attachment I-B. The historical VOC concentrations at these wells are also presented in tabular format in Figure 2 in Attachment I-C. Semi-annual groundwater quality monitoring results during this reporting period indicate that VOC-concentrations at down-gradient monitoring wells LR-8 and M-21 continue to fluctuate at very low part per billion levels, and VOC-concentrations at well LR-6 continue to remain at or near detection. The only Consent Decree performance standard (Table 2) above detection level at LR-6 for the last 10 years has been 1,1 dichloroethane, which remained below the performance standard for the reporting period and has not exceeded the performance standard since 1999. Monitoring results at LR-8, the long-term monitoring well located closest to the downgradient extent of the slurry wall, remained low during the reporting period with benzene concentrations approaching the performance standard of 0.7 ug/L, while chlorobenzene concentrations dipped below the performance standard of 5 ug/L. Other VOC constituents in this well remained at or near detection levels. Groundwater monitoring results at LR-8 remained consistent with the long-term trend of low VOC concentrations at this location. Monitoring results for down-gradient well M-21, which is located south of Mitchell Street and north of the slurry wall containment system, were below the performance standards during the period with the exception of chlorobenzene which fluctuated at the performance standard of 5 ppb during the period. General trends for VOC constituents in the monitoring wells indicate a slight reduction from historic concentrations with a seasonal variation of slightly higher concentrations in the fall versus the spring for LR-6 and LR-8 wells. Well M-21 had slightly higher concentrations of chlorobenzene in the spring versus the fall with concentrations slightly above to below the performance standard in the spring and below the performance standard in the fall.

Pursuant to EPA request and approval as presented in the letter dated March 21, 2014, sampling of the bedrock wells M-22 and OD-3 for the Consent Decree performance standards was completed semi-annually from May 2013 through May 2015. The current data for M-22 and OD-3 along with historic data including well MW-23 is provided in Table 3. The data show that the only constituent above detection in well MW-22 was 1,1-dichloroethane. The concentration of 1,1-dichloroethane in well M-22 was 1.27 ppb in May 2014, which is below the performance standard of 5 ppb, then results fell to at or near detection for the two following sampling events. The samples from well OD-3 indicated Benzene and Chlorobenzene above the performance standard in the fall of 2014 which dropped to ND in May 2015. All other constituents at OD-3 were at ND.

Graphs showing leachate concentrations at LCW-2 and LCW-4 during the period November 1998 to May 2015 are also included in Attachment I-B. Leachate VOC concentrations in leachate collection well LCW-2, located in the downgradient collection trench, and well LCW-4, located in the central collection trench, showed leachate quality results consistent with historic concentrations. LCW-4 leachate concentrations continued to be generally higher than leachate concentrations reported at LCW-2. Xylene, which is generally the highest concentration constituent in the LCW-4 location, fluctuated significantly during the reporting period. Benzene, which is generally the highest concentration constituent in the LCW-2 location, has trended upward with large fluctuations in the past few years. Concentrations at both LCW locations, inside the containment area, remain well above the concentrations of wells outside the containment area and the performance standards.

These long-term monitoring results continue to support the findings that hydraulic control of the containment system has allowed VOC concentrations down-gradient of the slurry wall containment system to decline over time and achieve performance standards through natural attenuation, and that the Site remedies continue to be protective of human health and the environment.

If you have any questions, please call me at (865) 691-5052.

Sincerely,
de maximis, inc

Clay McClarnon

CMC/akw

Attachments

cc: PAS Oswego Steering Committee
Marla Weider, Esq. USEPA
Payson Long, NYSDEC, Div. of Hazardous Waste Remediation
Brian Rogers, NYSDEC Region 7 Office
Ian Ushe, NYDOH, Office of Public Health

LIST OF ATTACHMENTS

II – C 1st Quarter 2015

C-1 Groundwater Elevation Data
C-2 Site Inspection Checklist and Leachate Disposal Checklist
C-3 Quarterly POTW Discharge Reports – 1st Quarter 2015

II – D 2nd Quarter 2015

D-1 Groundwater Elevation Data
D-2 Site Inspection Checklist and Leachate Disposal Checklist
D-3 Quarterly POTW Discharge Reports – 2nd Quarter 2015
D-4 Semi-Annual Leachate and Groundwater Monitoring (May 2015)

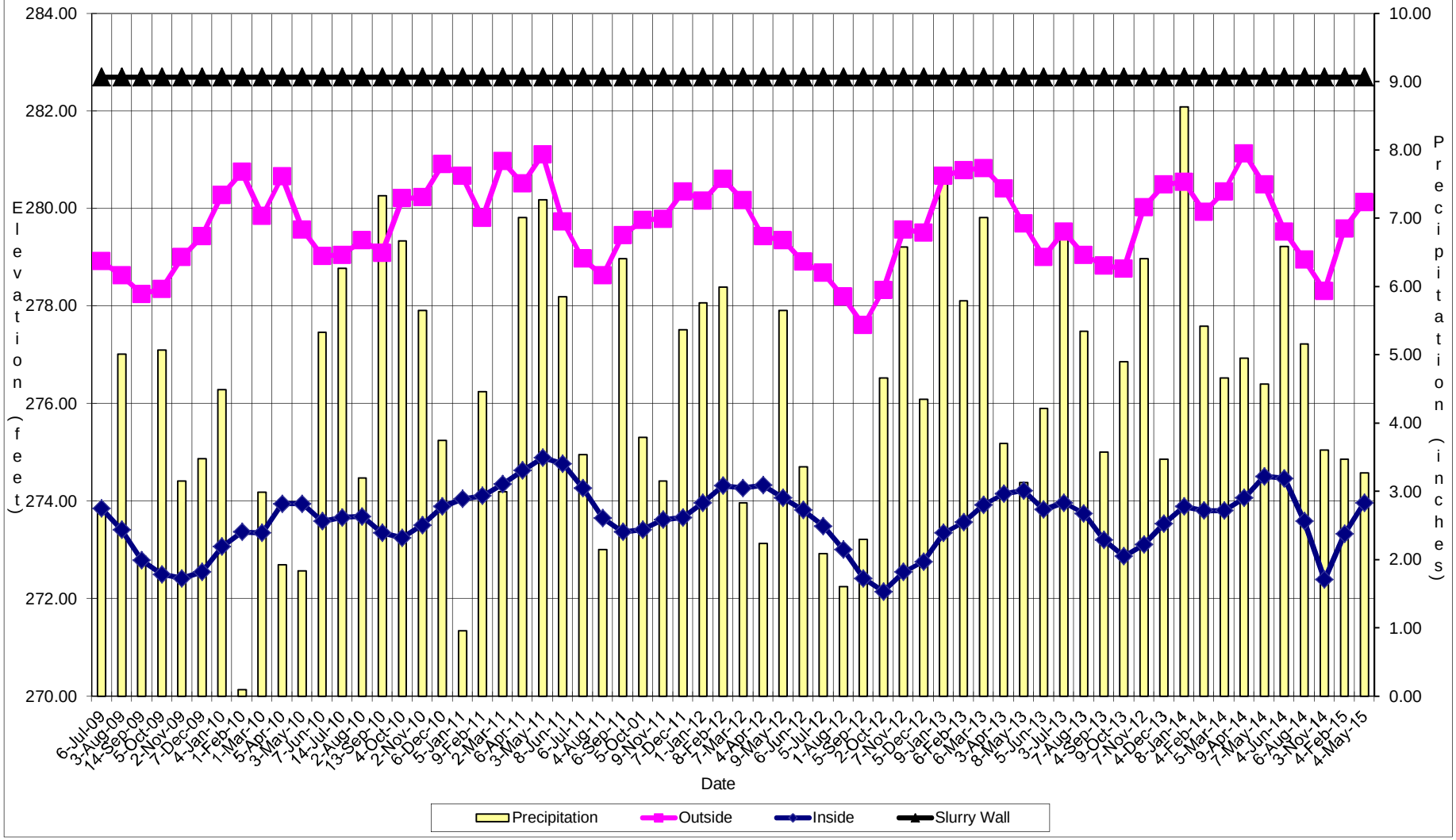
ATTACHMENT III – *ACTIONS PLANNED*

III – Future Report

I-A

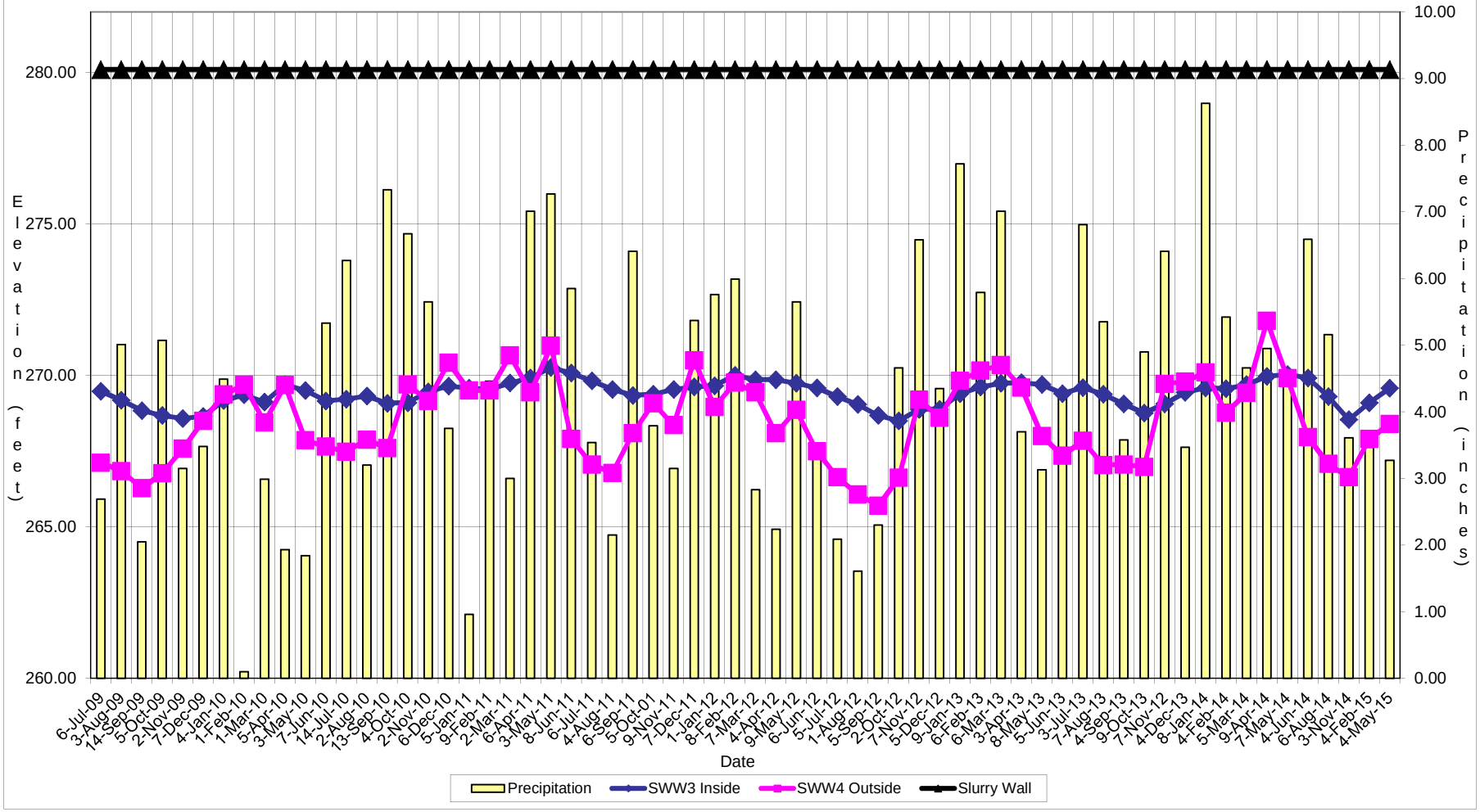
SLURRY WALL

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW1 and SWW2)



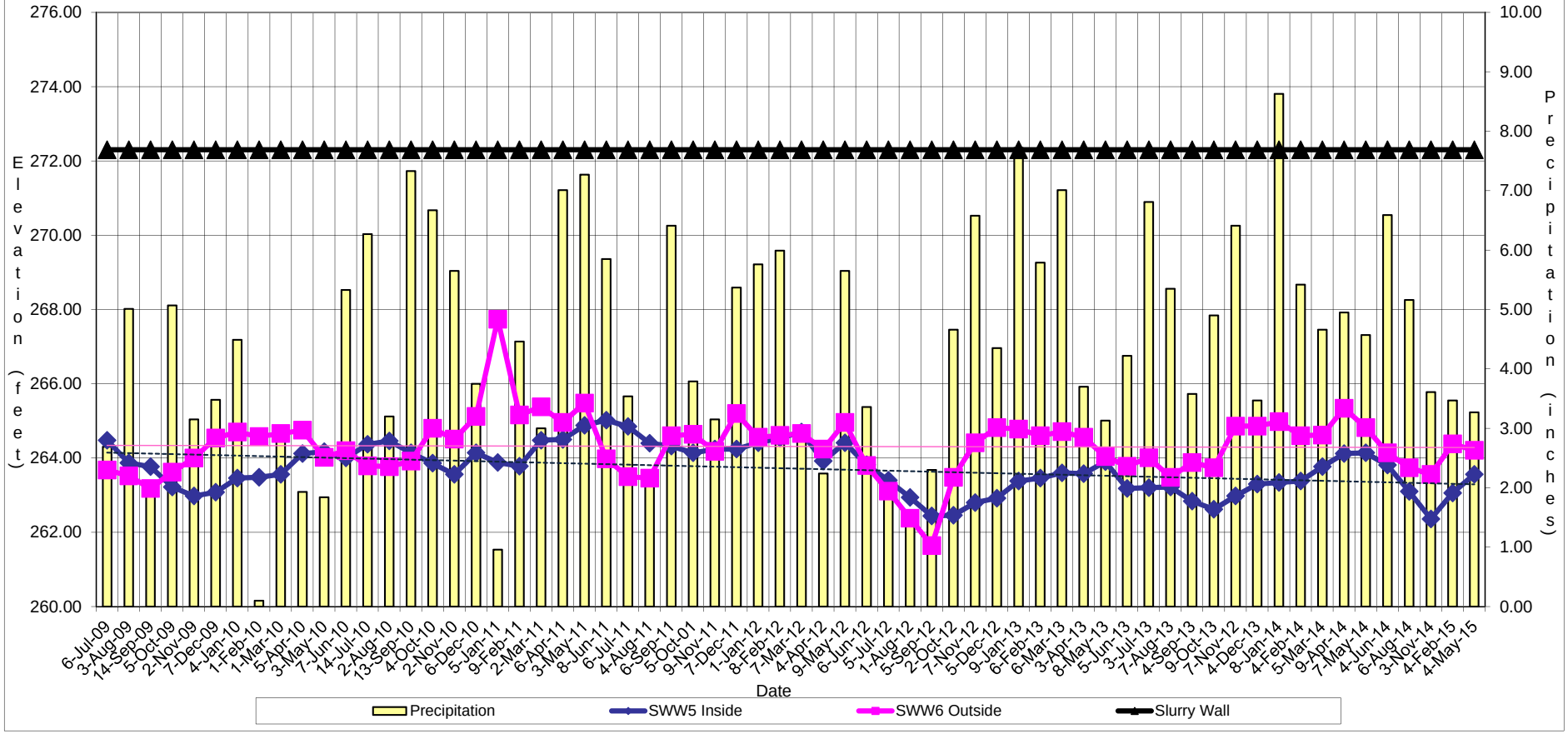
Prepared by de maximis, inc.
7/16/2015

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW3 and SWW4)



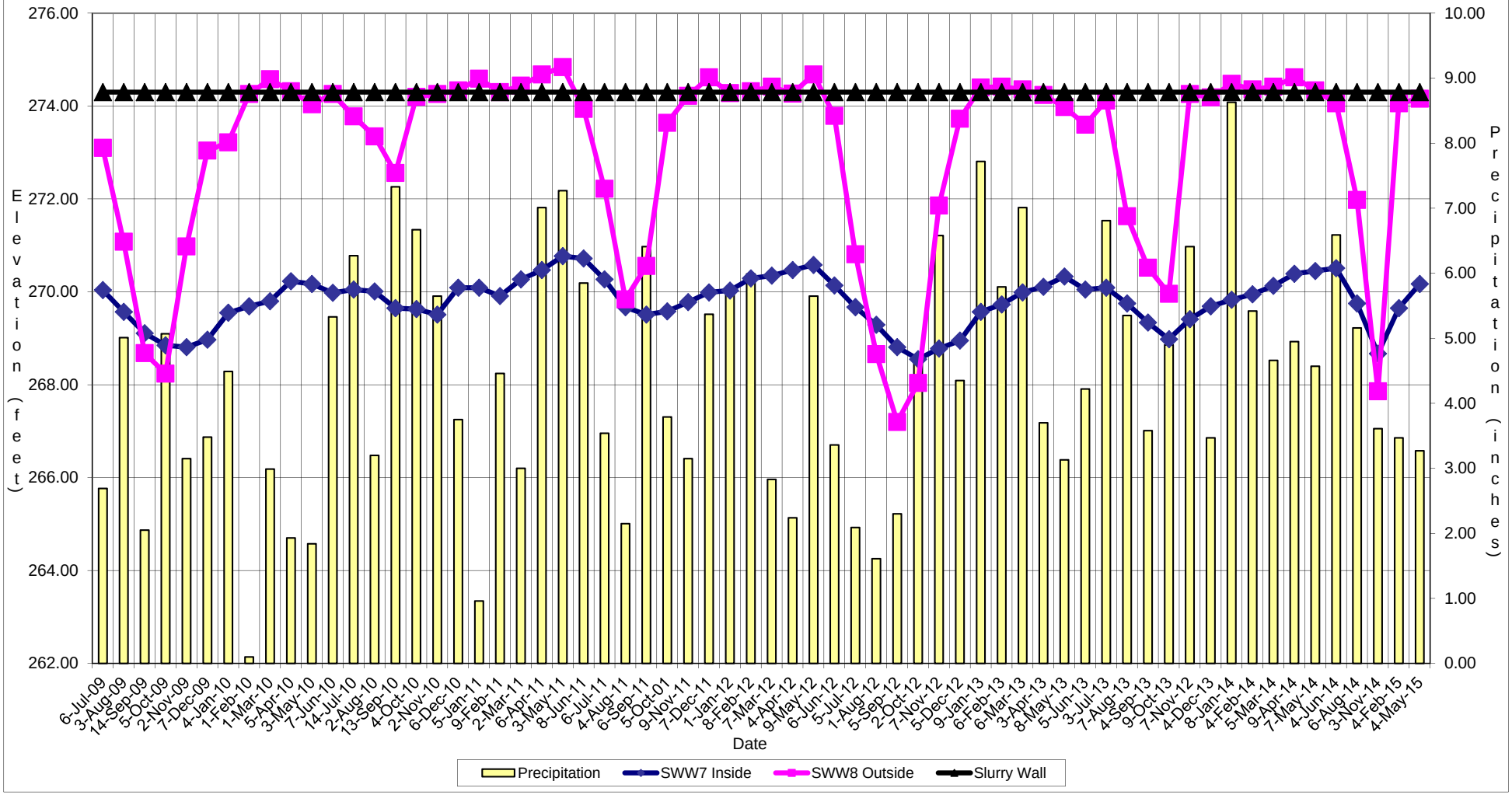
Prepared by de maximis, inc.
7/16/2015

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW5 & SWW6)



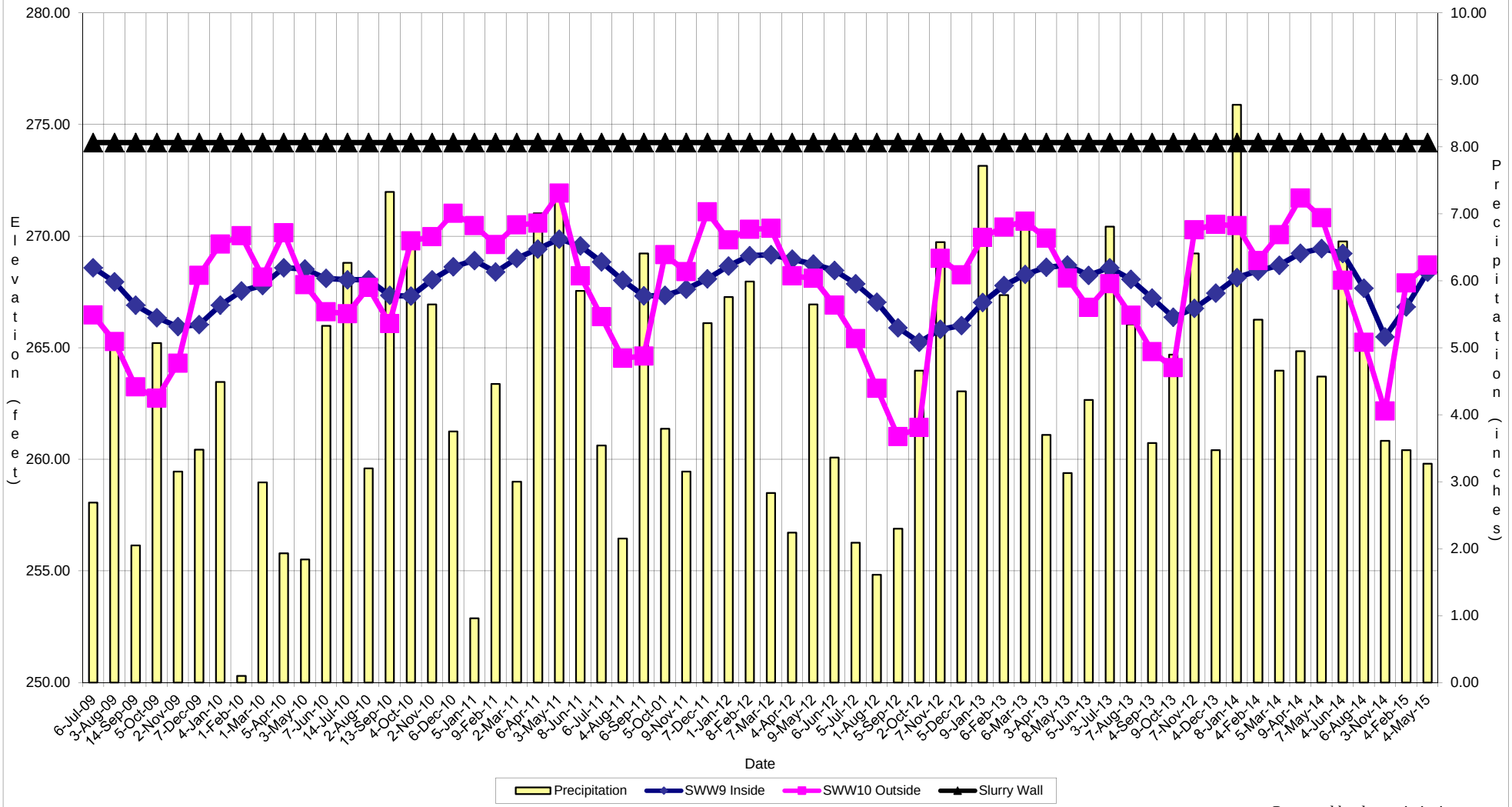
Prepared by de maximis, inc.
7/16/2015

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW7 and SWW8)



Prepared by de maximis, inc.
7/16/2015

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW9 and SWW10)



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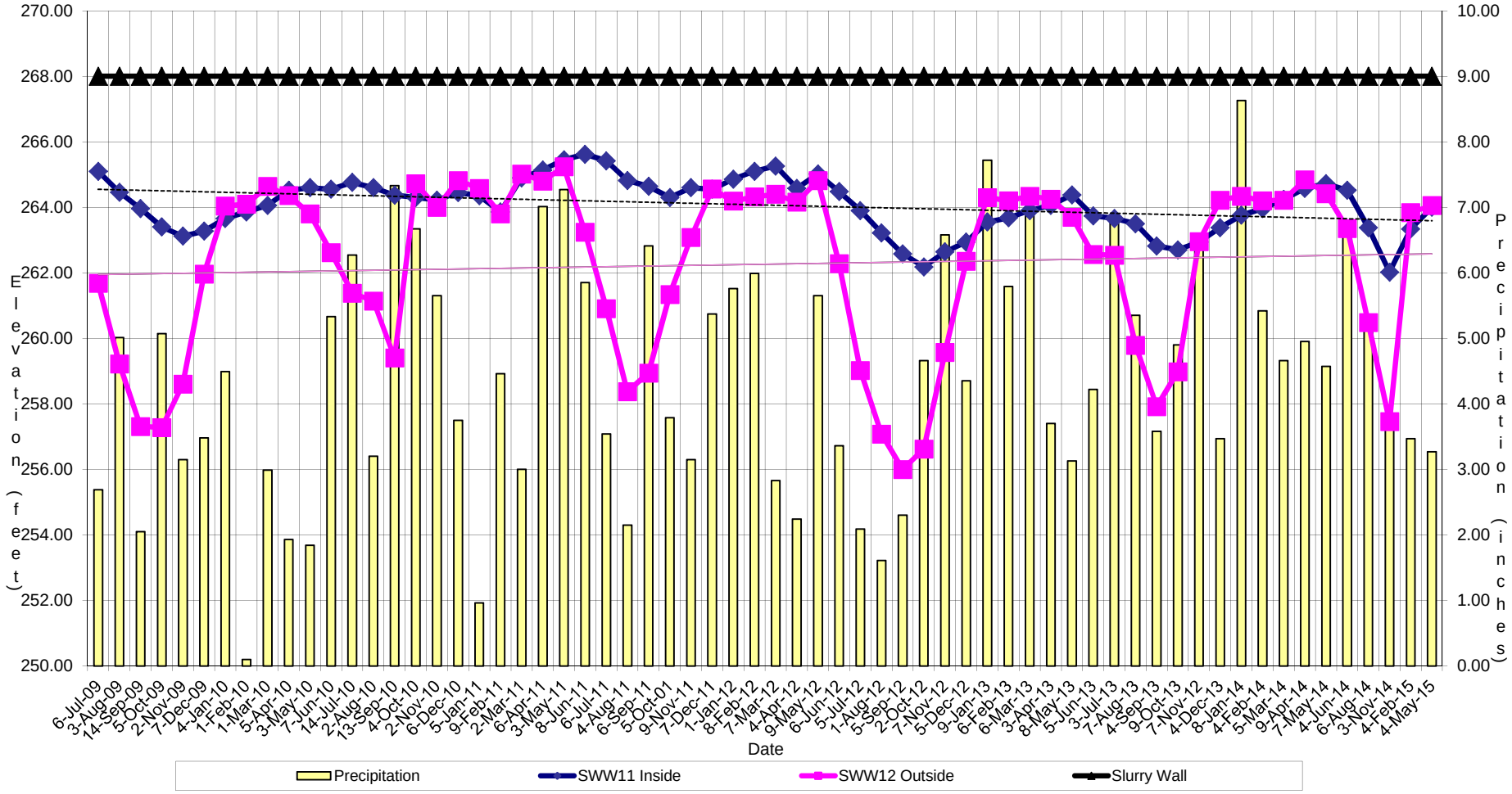
7/16/2015

PAS - OSWEGO
GROUNDWATER ELEVATIONS (SWW11 & SWW12)

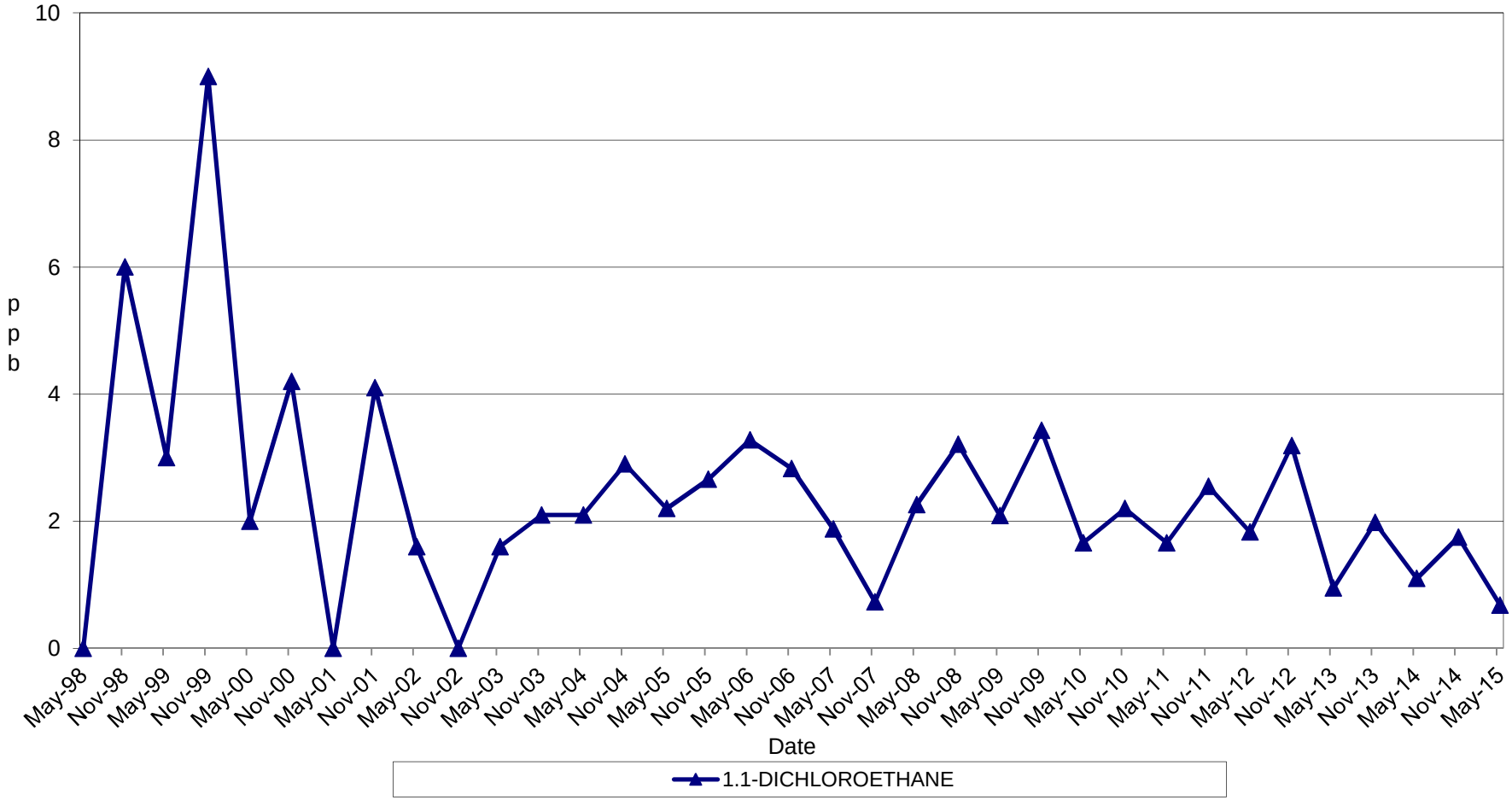


Prepared by de maximis, inc.
7/16/2015

I-B

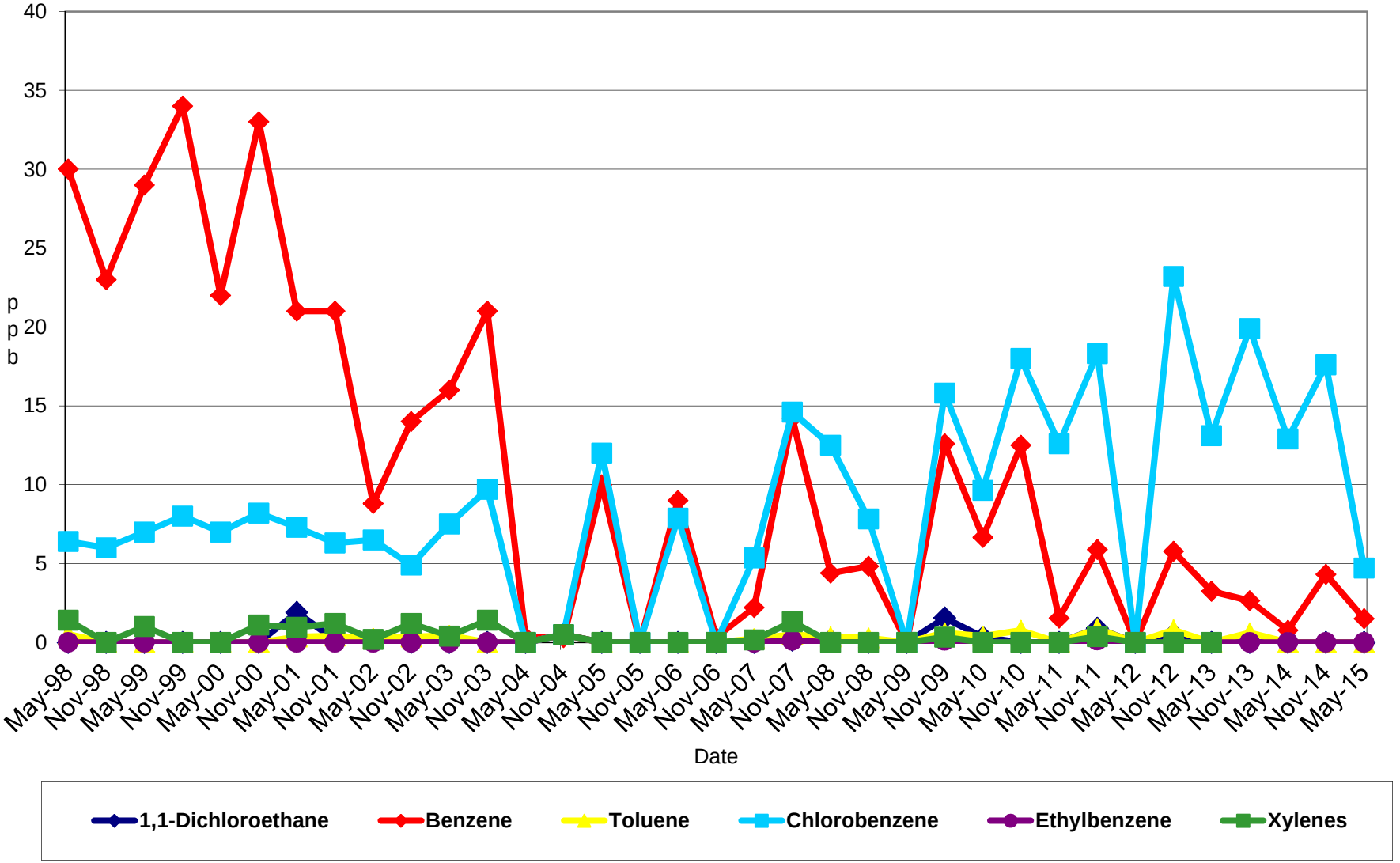
GRAPHS

Long Term Groundwater Monitoring at LR-6
PAS Oswego Superfund Site Groundwater
1998 - 2015



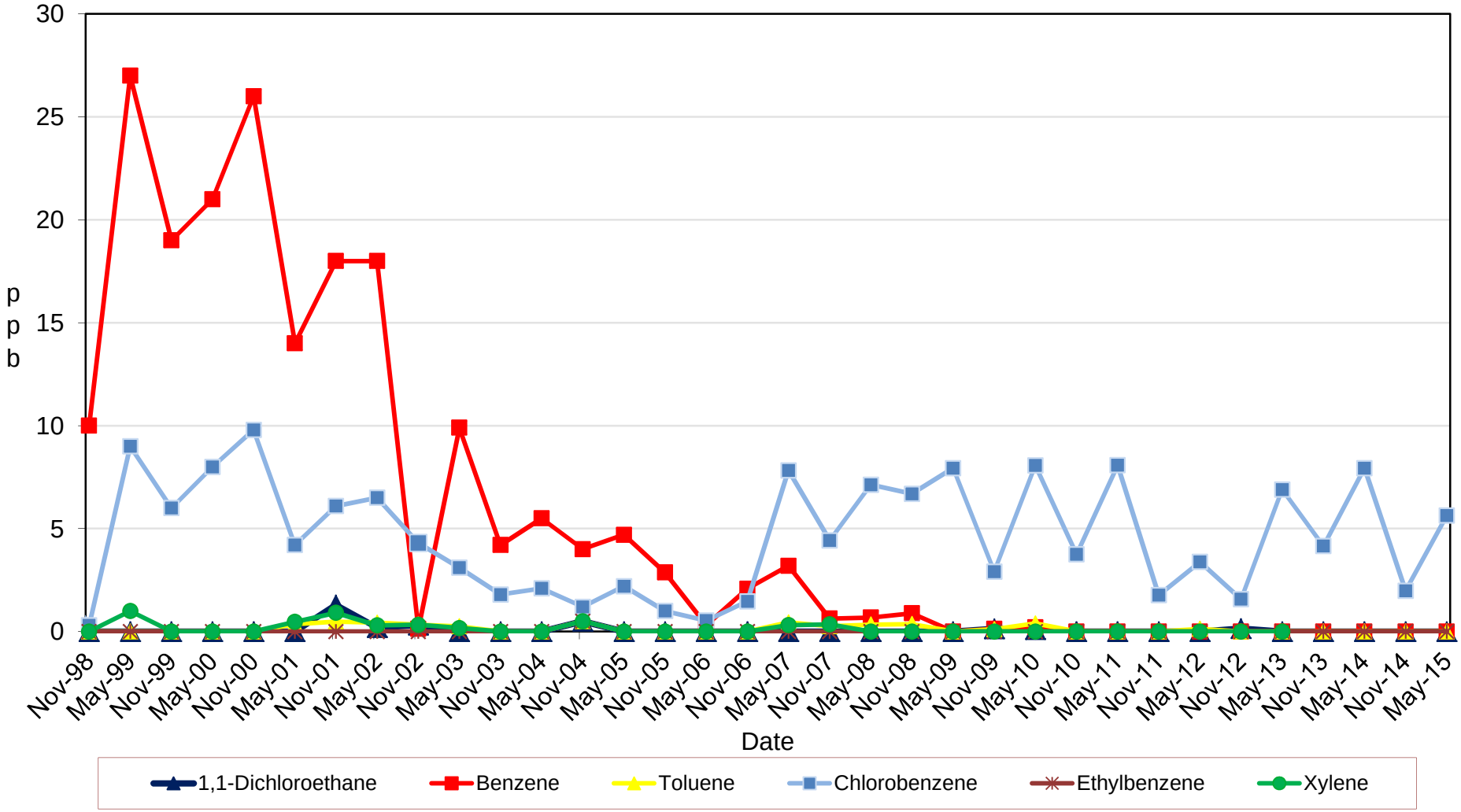
de maximis, inc. 7/16/2015

Long Term Groundwater Monitoring at LR-8
PAS Oswego Superfund Site Groundwater
1998 - 2015



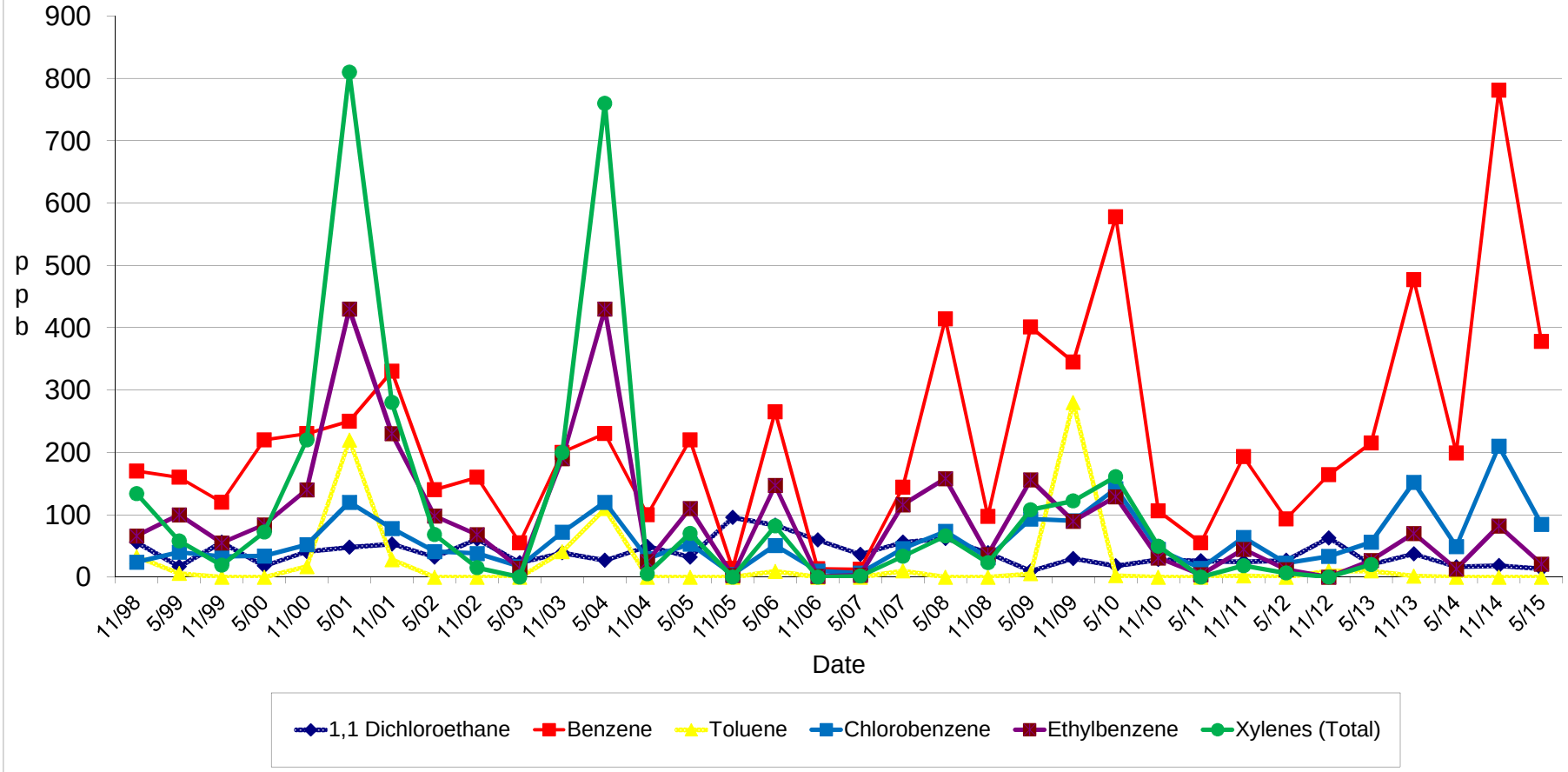
de maximis, inc. 7/16/2015

Long Term Groundwater Monitoring at M-21
PAS Oswego Superfund Site Groundwater
1998 - 2015

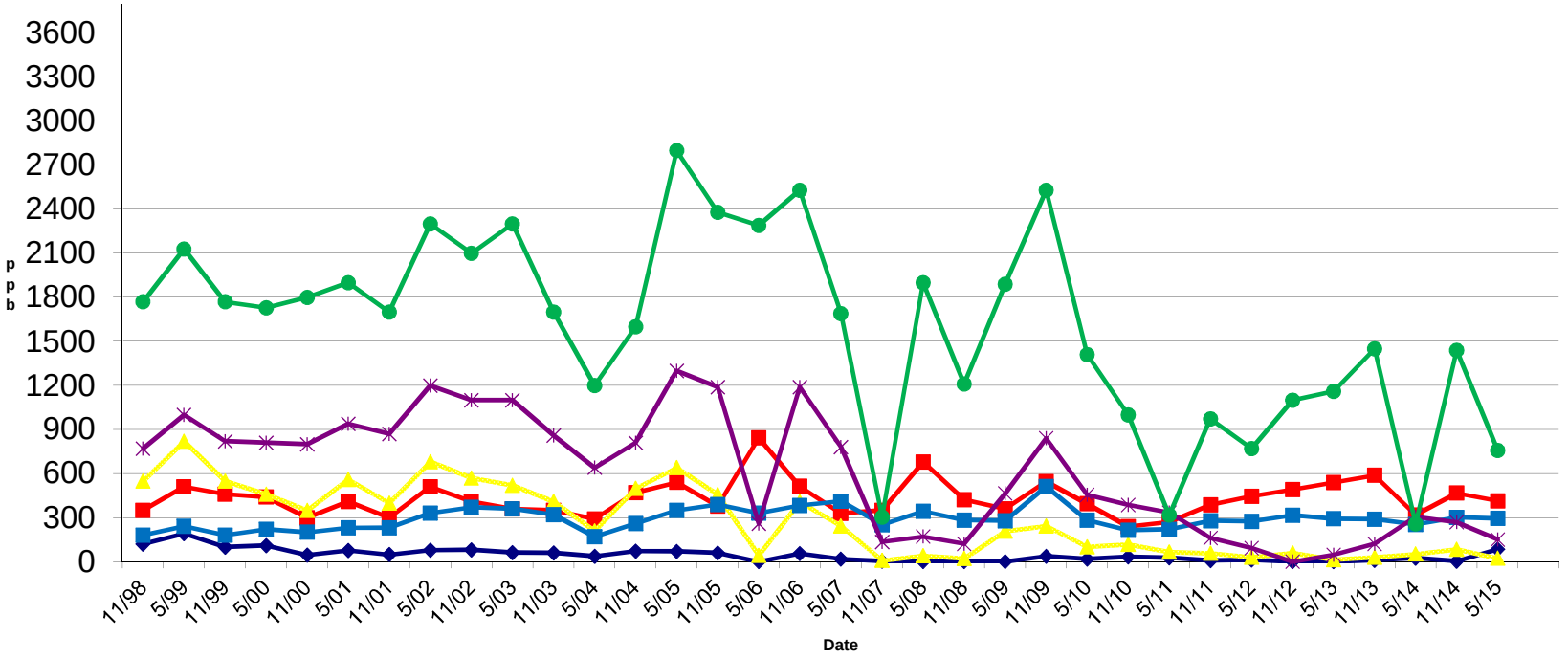


de maximis, inc.
7/16/2015

LCW2
PAS Oswego Superfund Site Leachate Concentrations (ppb)
1998 - 2015

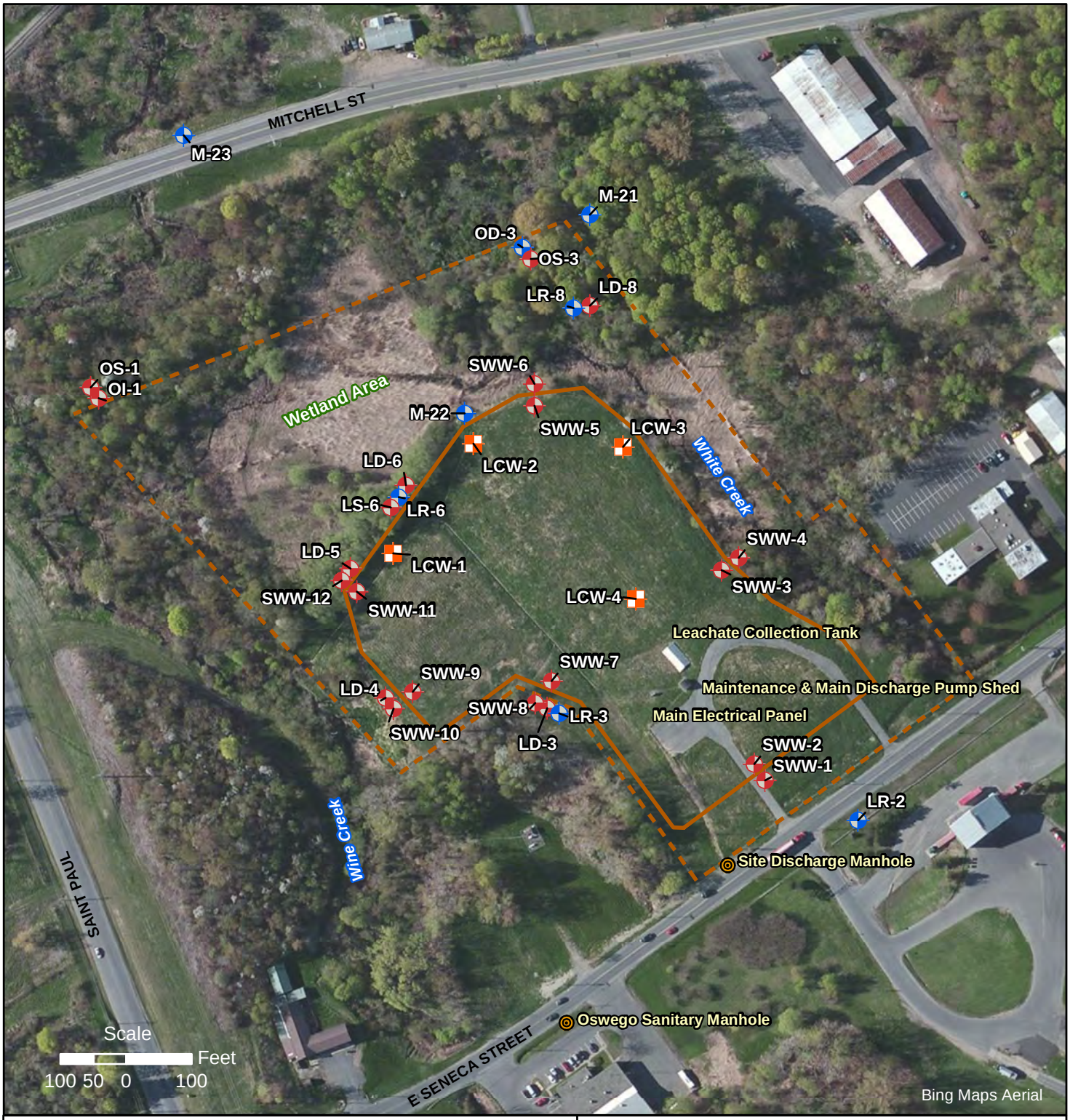


LCW4
PAS Oswego Superfund Site Leachate Concentrations (ppb)
1998 - 2015



I-C

FIGURES



LEGEND

Sample Locations

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Manhole
- Fence (Site Boundary)
- Slurry Wall

EXISTING SITE WELLS

PAS Site, Oswego, New York

Figure 1

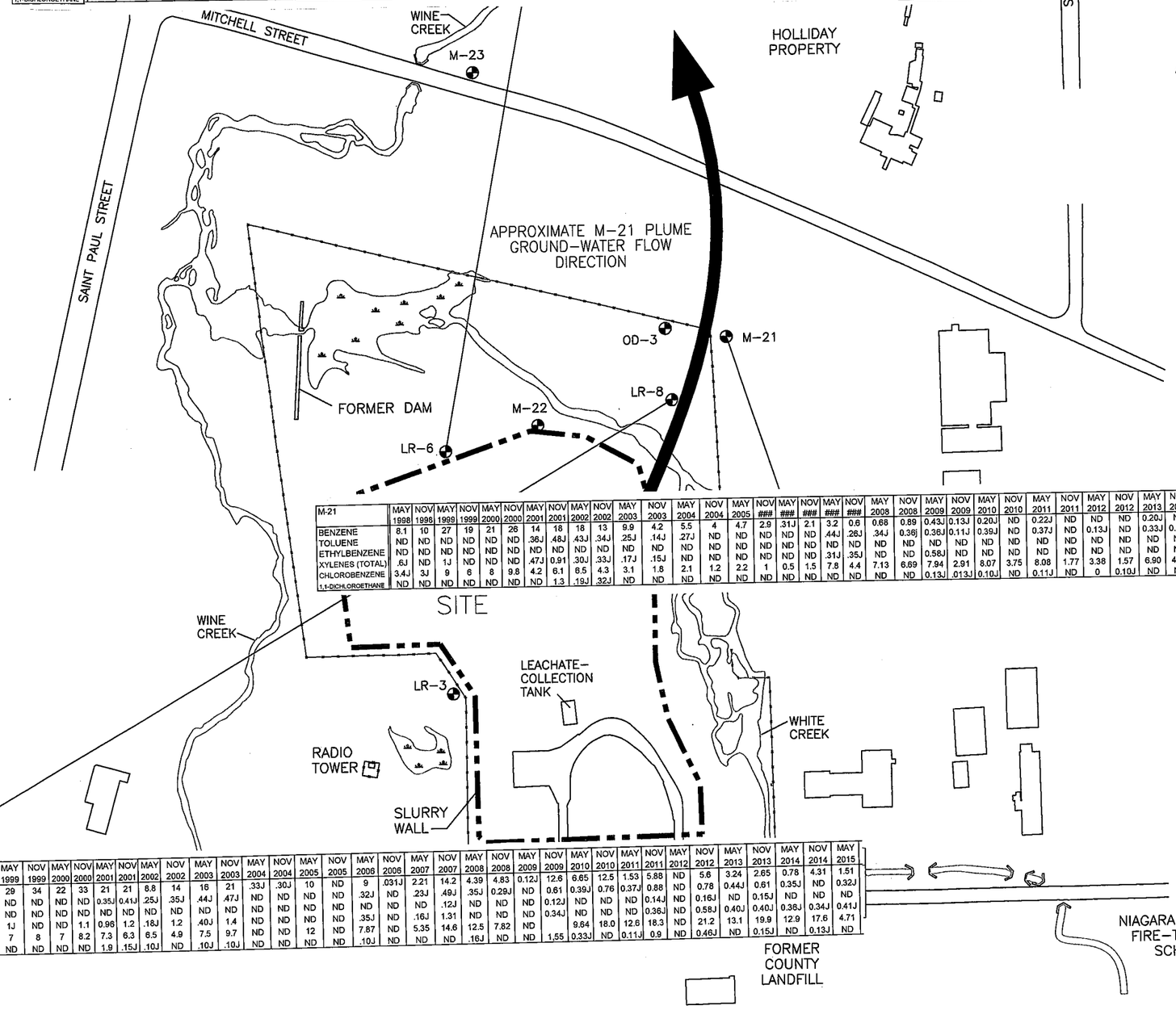
N

Project No.: 3131
Plot Date: 4 May 2012
Arc Operator: BJAR
Reviewed by:

ddms
1217 Bandana Boulevard North
Saint Paul, Minnesota 55108
Main Phone: (651) 842-4224
www.ddmsinc.com

R:\Projects\DEF\demax-1547\3131-PAS\DataAnalysis\GISData\Projects\120504_SiteMap.mxd

LR-6	MAY 1998	NOV 1998	MAY 1999	NOV 1999	MAY 2000	NOV 2000	MAY 2001	NOV 2001	MAY 2002	NOV 2002	MAY 2003	NOV 2003	MAY 2004	NOV 2004	MAY 2005	NOV 2005	MAY 2006	NOV 2006	MAY 2007	NOV 2007	MAY 2008	NOV 2008	MAY 2009	NOV 2009	MAY 2010	NOV 2010	MAY 2011	NOV 2011	MAY 2012	NOV 2012	MAY 2013	NOV 2013	MAY 2014	NOV 2014	MAY 2015
BENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
XYLENES (TOTAL)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	.12J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12J	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	1.66	2.55	1.83	3.19	0.95	1.98	1.10	1.75	0.68
1,1-DICHLOROETHANE	4.2J	6	3	9	2	4.2	ND	4.1	1.6	.16J	1.6	2.1	2.1	2.9	2.2	2.66	3.28	2.83	1.88	0.73	2.26	3.21	2.09	3.43	1.65	2.2	1.66	2.55	1.83	3.19	0.95	1.98	1.10	1.75	0.68



M-21	MAY 1998	NOV 1998	MAY 1999	NOV 1999	MAY 2000	NOV 2000	MAY 2001	NOV 2001	MAY 2002	NOV 2002	MAY 2003	NOV 2003	MAY 2004	NOV 2004	MAY 2005	NOV ###	MAY ###	NOV ###	MAY ###	NOV ###	MAY 2008	NOV 2008	MAY 2009	NOV 2009	MAY 2010	NOV 2010	MAY 2011	NOV 2011	MAY 2012	NOV 2012	MAY 2013	NOV 2013	MAY 2014	NOV 2014	MAY 2015
BENZENE	8.1	10	27	19	21	26	14	18	18	13	9.9	4.2	5.5	4	4.7	2.9	31J	2.1	3.2	0.6	0.68	0.89	0.43J	0.13J	0.20J	ND	0.22J	ND	ND	ND	0.20J	ND	0.24J	ND	0.19J
TOLUENE	ND	ND	ND	ND	ND	ND	.36J	.48J	.43J	.34J	.25J	.14J	.27J	ND	ND	ND	ND	ND	.44J	.26J	.34J	0.36j	0.36J	0.11J	0.39J	ND	0.37J	ND	0.13J	ND	0.33J	0.15J	0.34J	ND	0.25J
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
XYLENES (TOTAL)	.6J	ND	1J	ND	ND	ND	.47J	0.91	.30J	.33J	.17J	.15J	ND	ND	ND	ND	ND	ND	.31J	.35J	ND	ND	0.58J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	3.4J	3J	9	6	8	9.8	4.2	6.1	6.5	4.3	3.1	1.8	2.1	1.2	2.2	1	0.5	1.5	7.8	4.4	7.13	6.69	7.94	2.91	8.07	3.75	8.08	1.77	3.38	1.57	6.90	4.15	7.94	1.98	5.64
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	1.3	.19J	.32J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13J	.013J	0.10J	ND	0.11J	ND	0	0.10J	ND	ND	ND	ND	ND

LR-8	MAY 1998	NOV 1998	MAY 1999	NOV 1999	MAY 2000	NOV 2000	MAY 2001	NOV 2001	MAY 2002	NOV 2002	MAY 2003	NOV 2003	MAY 2004	NOV 2004	MAY 2005	NOV 2005	MAY 2006	NOV 2006	MAY 2007	NOV 2007	MAY 2008	NOV 2008	MAY 2009	NOV 2009	MAY 2010	NOV 2010	MAY 2011	NOV 2011	MAY 2012	NOV 2012	MAY 2013	NOV 2013	MAY 2014	NOV 2014	MAY 2015
BENZENE	30	23	29	34	22	33	21	21	6.8	14	16	21	.33J	.30J	10	ND	9	.031J	2.21	14.2	4.39	4.83	0.12J	12.6	6.65	12.5	1.53	5.88	ND	5.6	3.24	2.65	0.78	4.31	1.51
TOLUENE	0.51J	ND	ND	ND	ND	ND	0.35J	0.41J	.25J	.35J	.44J	.47J	ND	ND	ND	ND	.32J	ND	.23J	.49J	.35J	0.29J	ND	0.61	0.39J	0.76	0.37J	0.88	ND	0.78	0.44J	0.61	0.35J	ND	0.32J
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	.35J	ND	.16J	1.31	ND	ND	ND	0.12J	ND	ND	ND	0.14J	ND	0.16J	ND	0.15J	ND	ND	ND
XYLENES (TOTAL)	1.4J	ND	1J	ND	ND	1.1	0.96	1.2	.18J	1.2	.40J	1.4	ND	ND	ND	12	ND	7.87	ND	5.35	14.6	12.5	7.82	ND	0.34J	ND	ND	0.36J	ND	0.58J	0.40J	0.40J	0.36J	0.34J	0.41J
CHLOROBENZENE	6.4	6	7	8	7	8.2	7.3	6.3	6.5	4.9	7.5	9.7	ND	ND	ND	ND	.10J	ND	ND	ND	.16J	ND	ND	1.55	0.33J	ND	0.11J	0.9	ND	0.46J	ND	0.15J	ND	0.13J	ND
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND	1.9	.15J	.10J	ND	.10J	.10J	ND	ND	ND	ND	.10J	ND	ND	ND	.16J	ND	ND		9.64	18.0	12.6	18.3	ND	21.2	13.1	19.9	12.9	17.6	4.71

EXPLANATION

- LR-6 ⊕ LOCATION AND DESIGNATION OF EXISTING BEDROCK MONITORING WELL
- OD-1 ● LOCATION AND DESIGNATION OF ABANDONED BEDROCK MONITORING WELL
- FENCE (SITE BOUNDARY)
- SLURRY WALL
- LAND AREAS SUBJECT TO FREQUENT, SHALLOW INUNDATION

DESIGNATION OF SAMPLING LOCATION

DATE OF SAMPLING EVENT (R=REPLICATE)

M-25	AUG 1994	MAY 1996	NOV 1996	MAY 1997
BENZENE	4J	9	ND	12
TOLUENE	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND
XYLENES (TOTAL)	ND	ND	ND	ND
CHLOROBENZENE	1J	3J	ND	6
1,1-DICHLOROETHANE	ND	2J	4J	ND

CONCENTRATION OF VOC DETECTED IN BEDROCK GROUND WATER, MEASURED IN ug/L.

ND – NOT DETECTED

J – ESTIMATED CONCENTRATION (LESS THAN SAMPLE QUANTITATION LIMIT)

D – CONCENTRATION CALCULATED FROM SECONDARY DILUTION

B – COMPOUND DETECTED IN QUALITY CONTROL BLANKS

NOTES:

1. BASE MAP ADAPTED FROM TOPOGRAPHIC MAP DEVELOPED BY LOCKWOOD MAPPING, INC. BASED ON AN APRIL 14,1993 AERIAL PHOTOGRAPH; SOME WELL AND STREAM-GAUGE LOCATIONS ARE INFERRED; LOCATION OF SLURRY WALL BASED ON SITE PLAN DRAWN BY DUNN GEOSCIENCE CORP., INC. (DEC. 1994), TITLED "BORING, WELL & TEST PIT PLOT PLAN."
2. ANALYTICAL DATA PRIOR TO AUGUST 1994 OBTAINED FROM GOLDER ASSOCIATES, INC. (1993a) AND URS COMPANY, INC. (1994)
3. FIGURE PROVIDED BY ROUX ASSOCIATES, INC. (PROJECT No. 32702M06, FILE D0610002, DATED 3/98) AND PREVIOUSLY PRESENTED IN "REVIEW OF INTERIM GROUNDWATER REMOVAL AND LONG-TERM MONITORING PROGRAM DATA FOR PAS SITE" (MARCH 1998).

0 200' 400'

GRAPHIC SCALE

POLLUTION ABATEMENT SERVICES SITE
OSWEGO, NEW YORK
OPERATION AND MAINTENANCE AND
LONG-TERM MONITORING PLAN

HISTORICAL CONCENTRATIONS OF VOCs OF CONCERN DETECTED IN CONSENT DECREE WELLS (1998-2015)

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2

FIGURES

SET 3

Potentiometric and Gradient Plots

LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Potentiometric Surface Contours (ft)
- Fence (Site Boundary)
- Slurry Wall

Notes: LCW wells labeled on Bedrock Water Surface map for reference only and were not used in creation of the potentiometric surface.

Linear kriging was used to determine both potentiometric surfaces. Bedrock contours within the containment system are inferred from the identified bedrock wells.

POTENTIOMETRIC SURFACES AUGUST 6, 2014

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 8 Oct 2014
Arc Operator: BJR
Reviewed by: MEP

Figure 2014-Q3-A

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LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - AUGUST 6, 2014

PAS Site, Oswego, New York

Figure 2014-Q3-B

Project No.: 3131
Plot Date: 8 Oct 2014
Arc Operator: BJR
Reviewed by: MEP

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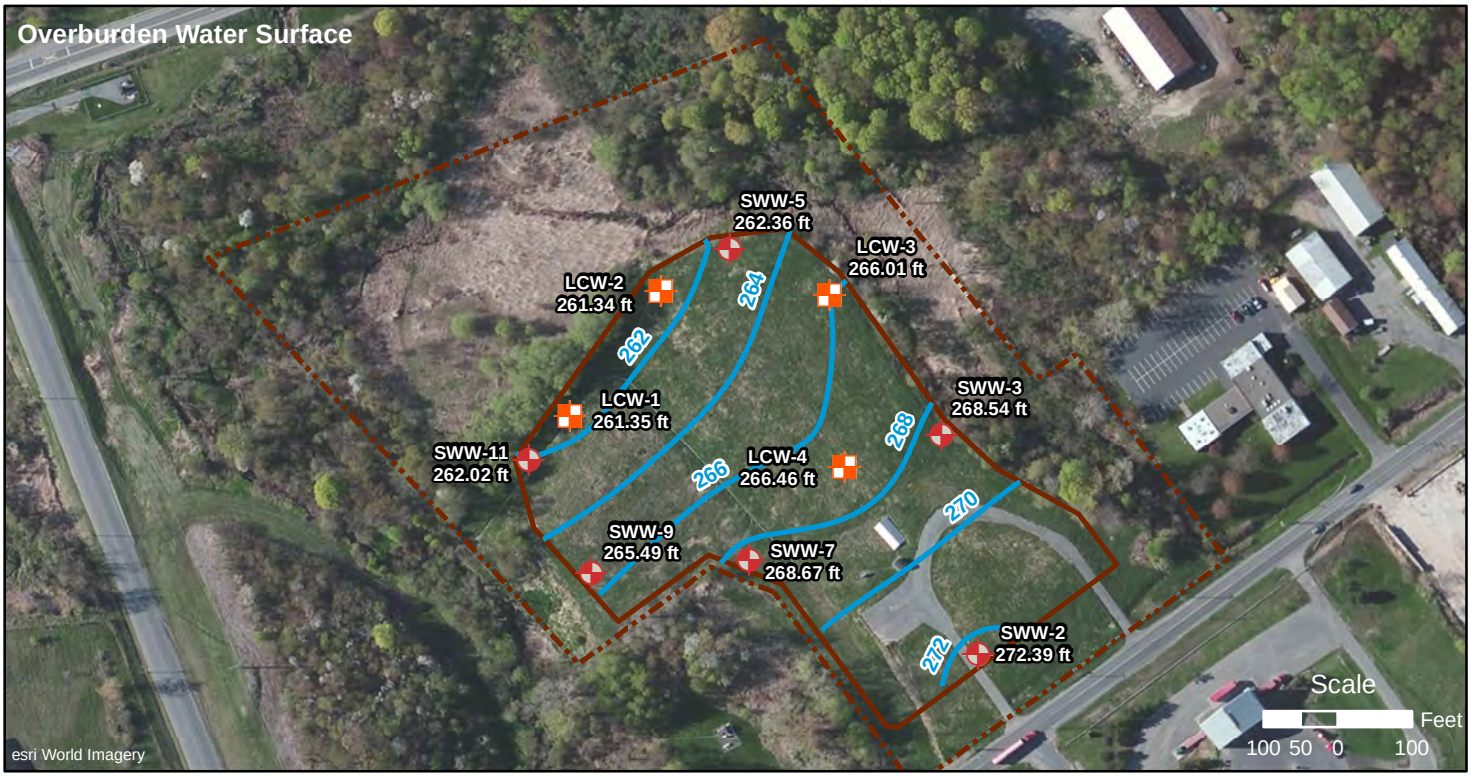

LEGEND

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POTENTIOMETRIC SURFACES NOVEMBER 3, 2014

PAS Site, Oswego, New York

Figure 2014-Q4-A

N

Project No.: 3131
Plot Date: 10 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

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LEGEND

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- Overburden Monitoring Well
- Fence (Site Boundary)
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- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
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Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - NOVEMBER 3, 2014

PAS Site, Oswego, New York

Figure 2014-Q4-B

Project No.: 3131
Plot Date: 9 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

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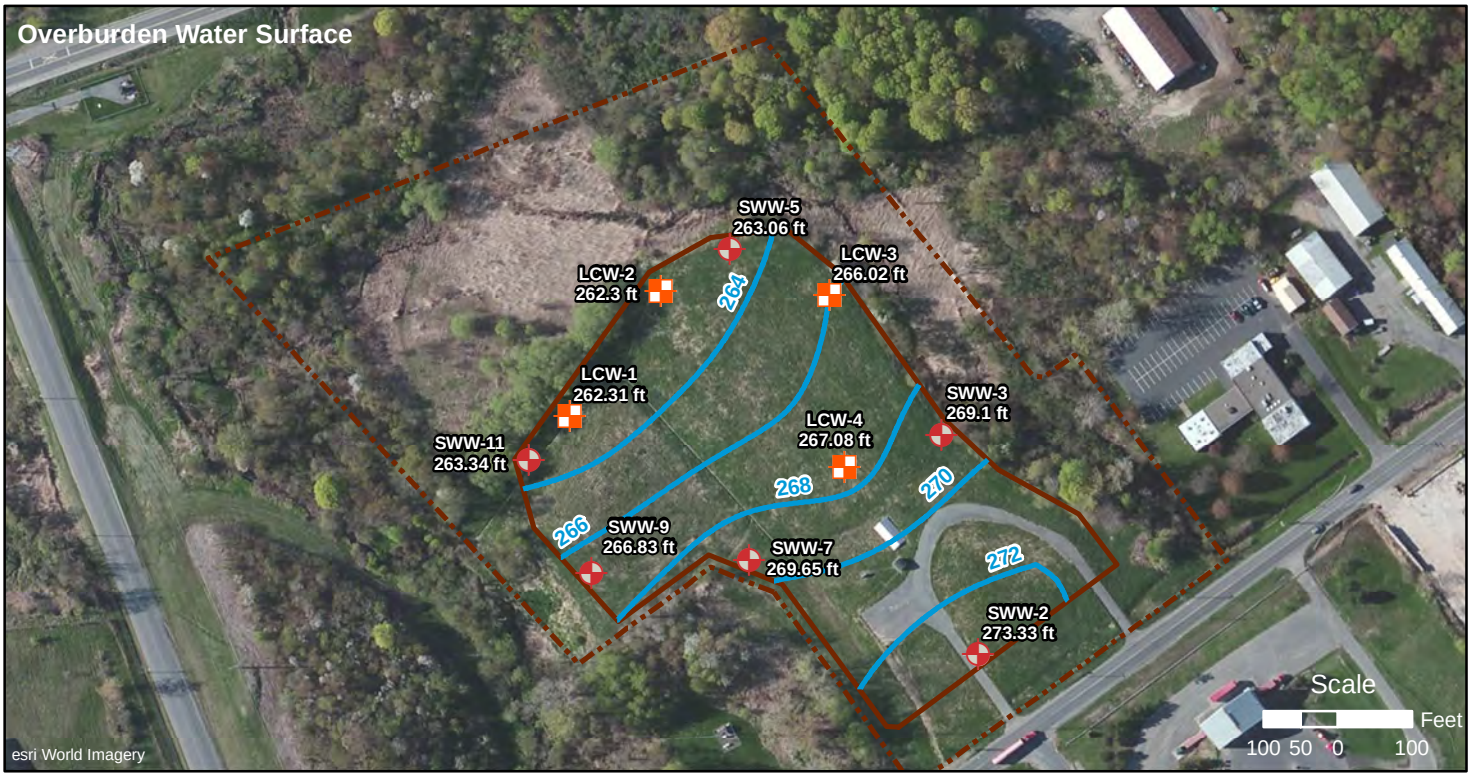

LEGEND

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POTENTIOMETRIC SURFACES FEBRUARY 4, 2015

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 25 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

Figure 2015-Q1-A

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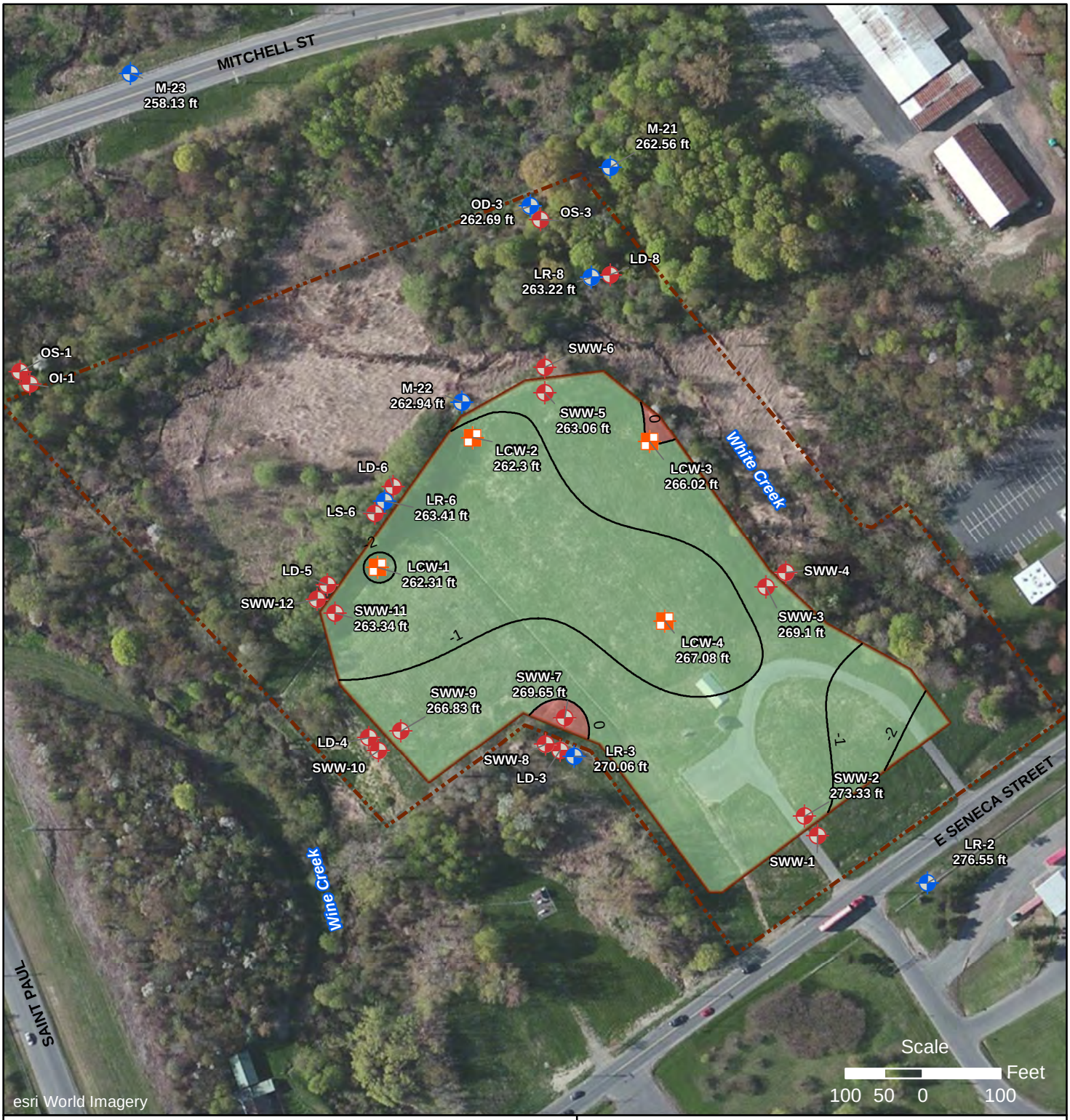

LEGEND

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Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - FEBRUARY 4, 2015

PAS Site, Oswego, New York

Figure 2015-Q1-B

N

Project No.: 3131
Plot Date: 25 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

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LEGEND

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POTENTIOMETRIC SURFACES MAY 4, 2015

PAS Site, Oswego, New York

N

Project No.: 3131
Plot Date: 29 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

Figure 2015-Q2-A

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LEGEND

- Bedrock Monitoring Well
- Leachate Collection Well (Overburden)
- Overburden Monitoring Well
- Fence (Site Boundary)
- Line of Potentiometric Surface Difference (ft)
- Upward Vertical Hydraulic Gradient
- Downward Vertical Hydraulic Gradient
- Slurry Wall

Notes:
Overburden wells within the slurry wall were used to calculate the overburden potentiometric surface. Bedrock wells outside the slurry wall were used to calculate bedrock potentiometric surface. The bedrock potentiometric surface was subtracted from the overburden surface to produce the inferred vertical hydraulic gradient.

Negative gradient values indicate an upward hydraulic gradient.

INFERRED VERTICAL HYDRAULIC GRADIENT - MAY 4, 2015

PAS Site, Oswego, New York

Figure 2015-Q2-B

Project No.: 3131
Plot Date: 29 Jun 2015
Arc Operator: BJR
Reviewed by: MEP

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TABLES

TABLE 1

HISTORICAL LEACHATE REMOVAL SUMMARY (Gallons)
Pollution Abatement Services Superfund Site
Oswego, New York

	91 IGR Order			*94 IGR Order*					*98 Consent Decree*															
Month	***1992***	***1993***	***1994***	***1994***	***1995***	***1996***	***1997***	***1998***	***1998***	***1999***	***2000***	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***
Jan		20,170	30,067		25,445	25,441	25,972	21,485		9,979	15,706	10,506	9,751	10,537	9,962	10,472	9,972	9,683	9,503	20,184	10,918	10,000	10,005	10,000	10,000
Feb	18,937	20,283	29,661		25,830	23,457	22,316	12,924		16,056	9,687	10,294	10,444	9,904	9,899	10,300	10,030	9,620	9,656	11,200	11,293	10,010	10,000	10,000	10,000
Mar	20,314	20,347	29,602		24,852	25,098	24,257	25,455		15,785	8,927	10,484	10,307	9,896	10,573	10,149	9,812	0	9,500	20,125	11,000	10,000	10,000	10,000	10,000
Apr	20,140	30,403	29,051		22,815	22,187	26,793	26,009		28,110	9,352	19,609	8,463	10,211	9,765	9,947	9,795	10,058	8,575	19,600	10,995	10,010	10,000	10,000	10,000
May	20,620	30,803	29,199		23,690	23,718	24,840	23,935		13,566	26,160	10,158	8,868	10,117	10,503	10,215	9,743	9,693	7,712	20,047	11,000	10,020	20,000	20,000	20,000
Jun	20,030	30,244	20,481		24,586	23,924	23,830	20,052		20,685	25,292	10,055	9,822	10,518	10,105	10,193	9,885	10,110	9,474	19,000	10,950	10,005	20,000	20,000	20,000
Jul	20,270	31,069	20,655		23,450	25,402	25,340	20,411		10,121	20,416	10,470	10,255	10,197	10,292	10,100	9,902	9,472	10,144	18,873	0	10,000	20,000	20,000	0
Aug	20,363	31,404	25,690		24,188	25,129	19,677	20,292		21,832	23,597	9,368	10,254	10,403	10,306	10,025	9,839	9,781	10,200	19,600	19,000	10,020	20,000	20,000	0
Sep	20,807	31,232	25,677		18,343	21,514	20,417	20,520		10,255	20,407	10,473	9,907	10,566	10,456	9,672	9,499	9,616	10,000	19,000	12,800	20,005	20,000	20,000	0
Oct	19,421	31,114	14,815	0	23,288	24,541	17,867	16,458		10,255	**17,563**	10,226	10,400	8,196	10,717	9,773	9,802	0	10,871	18,806	20,000	20,005	20,000	20,000	0
Nov	20,409	30,239		25,562	20,133	20,589	18,564		8,185	10,250	**9,042**	9,355	10,435	9,908	10,486	9,987	9,692	9,497	10,750	19,068	20,000	20,005	10,000	10,000	0
Dec	20,497	30,311		25,121	22,544	22,347	19,498		10,238	10,816	**10,463**	9,214	9,686	10,130	10,359	9,833	9,779	9,603	10,900	11,009	20,000	10,010	10,000	10,000	0
Totals	*221,808*	*337,619*	*254,898*	*50,683*	*279,164*	*283,347*	*269,371*	*207,541*	*18,423*	*177,710*	*196,613*	*130,212*	*118,592*	*120,583*	*123,423*	*120,666*	*117,750*	*97,133*	*117,285*	*216,512*	*157,956*	*150,090*	*180,005*	*180,000*	*80,000*
Average Removal Per Month	*20,164*	*28,135*	*25,490*	*16,894*	*23,264*	*23,612*	*22,448*	*20,754*	*9,212*	*14,809*	*16,384*	*10,851*	*9,883*	*10,049*	*10,285*	*10,056*	*9,813*	*8,094*	*9,774*	*18,043*	*13,163*	*12,508*	*15,000*	*15,000*	*13,333*

SUMMARY:	***TOTALS (GAL)***	***AVG RATE (GAL/MO)***	
1991 IGR Order:	**814,325**	**23,951**	
1994 IGR Order:	**1,090,106**	**22,710**	
1998 C D:	**2,302,953**	**12,133**	(11/98 to present)
Total (To Date):	**4,207,384**		

1) Used CECOS - Niagara Falls for lechate treatment/disposal beginning in May 1996 - DuPont Deepwater used for treatment/disposal prior to May 96.

2) BBLES completed removal work at the end of July 2000; OBG began in August 2000.

3) Leachate collection well LCW4 pumped per 11/15/99 LCW4 pumping protocol as approved by EPA.

4) Leachate disposed at Clean Harbors facilities at Bristol CT from Mar05 to Oct07 and Baltimore MD from Nov07 to Jun07.

5) Leachate disposed at the Auburn Watewater Treatment Plant in Auburn, NY starting Jul 31 2008 to present.

6) Leachate disposed at the City of Oswego Wastewater Treatment Plant in Oswego, NY starting October 28, 2010 to present.

Table 2

PAS Site
Oswego, New York

Consent Decree
Performance Standards

Volatile Organic Compounds in Ground Water and Leachate		
Constituent	**Analysis**	**Performance Standard ug/L**
Benzene	8260B	0.7
Chlorobenzene	8260B	5
1,1-Dichloroethane	8260B	5
Ethylbenzene	8260B	5
Toluene	8260B	5
Xylenes	8260B	5

Notes:

1. ug/L = micrograms per liter which equates to parts per billion (ppb).

TABLE 3
PAS OSWEGO SUPERFUND SITE

ADDITIONAL BEDROCK GROUNDWATER MONITORING RESULTS

	Perf Std	Additional monitoring well MW-22						Additional mon well MW-23			Additional monitoring well OD-3				
LTM CONSTITUENT	(ug/l)	Apr 06	May 06	May 09	May 14	Nov 14	May 15	Apr 06	May 06	May 09	Apr 06	May 06	May 14	Nov 14	May 15
Benzene	0.7	0.12J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND
Chlorobenzene	5	1J	ND	ND	ND	ND	ND	ND	ND	ND	0.11J	ND	ND	26.3	ND
1,1-Dichloroethane	5	ND	0.14J	ND	1.27	ND	0.12J	0.86	0.9	0.82	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16J	ND	ND	ND
Xylenes	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11J	ND	0.31J	ND

NOTES:
1. Additional downgradient bedrock wells M-22, M-23 and OD-3 monitored during April and May 2006 pursuant to January 25, 2006 letter to EPA and EPA approval letter dated February 2, 2006. M-22 and OD-3 sampled in 2014 pursuant to March 21, 2014 letter and EPA approval.
2. All results ug/L

II-A

3rd QUARTER REPORT 2014

QUARTERLY PROGRESS REPORT – 3rd QUARTER 2014
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: July – September (3rd Quarter) 2014

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, New York by O'Brien & Gere Operations LLC, (O'Brien & Gere) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 60,130 gallons of leachate were removed from the Site during the period of July, August and September 2014. Specific quantities of leachate removed included 20,130 gallons in July, 20,000 gallons in August and 20,000 gallons in September. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- Leachate was pumped monthly from the PAS Site to the City of Oswego, New York sanitary sewer system, and was treated at the Oswego, New York Eastside Wastewater Treatment Facility located at 71 Mercer St. in Oswego, New York.

- Quarterly groundwater elevation monitoring was performed on August 6, 2014. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment A-1)

- On July 16, 2014, O'Brien & Gere performed well survey inspections for all Site wells. The inspections were documented in the well survey forms submitted with the July 2014 Annual Report.

- On August 6, 2014, O'Brien & Gere replaced all groundwater well locks using common keyed security.

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system, and general Site conditions. (Attachment A-2) Monthly Site maintenance activities included the following:

    - Mowing of surface grass from land caps, and along the southern, and western security fence line was conducted on August 7, 2014

- Inspected the perimeter security fence of the Site. Small brush and fallen tree limbs were removed from fence. No discrepancies were reported at the time of the inspection.

- The Site single French drainage system and two (2) concrete troughs were inspected and cleared of accumulated grass. No discrepancies were reported at the time of the inspection.

- Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. No damage to the cap was observed.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, and insects, and where properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. No discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel were inspected. No discrepancies were reported at the time of the inspection.

- During the months of July – September 2014, access road repairs were not required.

- On July 9, August 6, and September 10, 2014, O'Brien & Gere performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. In advance of each leachate removal event, O'Brien & Gere notified the City of Oswego Eastside Wastewater Treatment Facility of the scheduled leachate discharge. Prior to each leachate discharge, the City of Oswego was notified. (Attachment A-2)

- Upon completing the monthly leachate collection system inspections, O'Brien & Gere manually energized the four leachate collection pumps, identified as LCW-1, LCW-2, LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment A-2)

- During the months of July, August and September 2014, O'Brien & Gere pumped a combined total of 60,130 gallons of leachate from LCW 1, 2, 3 & 4 into the leachate collection tank and then to the City of Oswego. Leachate was pumped using the Site discharge pumping system into the City of Oswego off-site sanitary sewer system. The leachate pumping system consists of one electrically powered centrifugal discharge pump, conveyance hose, discharge flow totalizer and leachate sampling port. This discharge system is located within the confines of the project's wooden utility shed. The amount of leachate discharged during each removal event, along with discharge flow totalizer

amounts, pH, pump priming times, and leachate water temperatures were recorded on the Leachate Disposal Checklist for each monthly removal event. (Attachment A-2)

- On August 6, 2014, O'Brien & Gere collected five-gallons of leachate water for purposes of a leachate treatability study being conducted by O'Brien & Gere in conjunction with the plan approved by the City of Oswego to address Arsenic and Selenium levels in the PAS leachate. Leachate was collected from the discharge port of the leachate pump system, and preserved using industry standard methods. The leachate water was delivered to the O'Brien & Gere pilot study lab located in Liverpool, New York for analysis.

- Upon completing each monthly leachate discharge the leachate discharge pump and tank suctions hoses were placed back into the leachate hold tank and the leachate pump system was shut down and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly or quarterly Site activities, the Site metal access gates were closed, and padlocked.

- The PAS Oswego Site quarterly discharge reports for the 3rd quarter of 2014 were submitted. The report to the City of Oswego was submitted on September 30, 2014 in accordance with permit 6-2010-13, and the report to the City of Auburn was submitted on September 16, 2013 in accordance with permit 2014-01. In addition, sampling was performed on August 6, 2014 for a Treatability Study on PAS discharge to evaluate treatment of Arsenic and Selenium as revised by the City of Oswego permit standards. (Attachment A-3)

DOCUMENTATION OF REMOVAL ACTIVITIES FOR PREVIOUS QUARTER

- The Groundwater Pre-pumping Well Monitoring Level Form for August 6, 2014 is attached to this report. (Attachment A-1)

- Site Inspection Checklist for July 9, August 6 & 7, and September 10, 2014 are attached to this report. (Attachment A-2)

- Leachate Disposal Checklist for July 9, August 6, and September 10, 2014 are attached to this report. (Attachment A-2)

- The PAS Quarterly Discharge reports submitted on September 30, 2014 to the City of Oswego and September 16, 2014 to the City of Auburn are attached. (Attachment A-3)

ATTACHMENT A-1

GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 8/6/2014 Technician - Martin Koennecke Month - August

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	10.55	9.98	11.14	10.38	10.38	✓			
SWW2	289.37	15.89	15.62	16.36	15.78	15.78	✓			
SWW3	286.50	17.08	16.76	17.46	17.20	17.20	✓			
SWW4	283.60	16.82	15.72	18.00	16.52	16.52	✓			
SWW5	277.02	13.02	12.26	14.08	13.92	13.92	✓			
SWW6	273.06	9.66	9.15	10.68	9.32	9.32	✓			
SWW7	277.93	8.33	7.92	8.64	8.18	8.18	✓			
SWW8	278.24	7.26	4.89	9.58	6.26	6.26	✓			
SWW9	285.55	17.72	17.45	18.50	17.88	17.88	✓			
SWW10	280.43	15.08	12.72	17.24	15.18	15.18	✓			
SWW11	273.50	9.14	8.42	10.28	10.12	10.12	✓			
SWW12	272.82	13.36	11.45	15.74	12.34	12.34	✓			
LCW-1	272.21	8.41	7.50	9.75	9.90	9.90		✓	9.90	
LCW-2	274.14	10.66	9.76	12.00	12.14	12.14		✓	12.14	
LCW-3	284.36	17.94	17.74	18.31	17.96	17.96	✓			
LCW-4	285.70	17.75	17.10	18.48	17.52	17.52	✓			
OS-1	272.10	12.93	11.36	15.66	11.88	11.88	✓			
OI-1	272.00	13.53	12.45	15.20	12.40	12HO				
OS-3	277.89	16.69	15.58	18.18	16.32	16.32	✓			
OD-3	277.85	16.55	15.45	18.02	16.12	16.12	✓			
LD-3	278.62	7.40	5.24	9.36	6.64	6.64	✓			
LD-4	279.25	14.00	12.14	16.22	14.23	14.23	✓			
LD-5	272.94	14.07	12.14	16.38	12.94	12.94	✓			
LS-6	274.14	14.05	12.58	16.32	13.52	13.52	✓			
LD-6	274.03	13.35	11.68	15.80	12.44	12.44	✓			
LD-8	272.83	9.88	8.90	11.04	9.72	9.72	✓			
LR-2	289.85	14.66	13.56	15.70	14.12	14.12	✓			
LR-3	278.06	9.67	8.54	11.30	8.92	8.92	✓			
LR-6	274.39	11.76	10.78	13.52	11.20	11.20	✓			
LR-8	273.42	11.26	10.47	12.42	10.85	10.85	✓			
M-21	272.32	10.89	10.06	12.14	10.46	10.46	✓			
M-22	273.88	11.71	10.74	13.47	11.16	11.16	✓			
M-23	270.49	13.66	13.12	14.54	13.10	13.10		✓	13.10	

ATTACHMENT A-2

SITE INSPECTION CHECKLIST AND LEACHATE DISPOSAL CHECKLIST

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 7-9-14 Time 7:30

Field Technician MARTIN KOENNECKE Weather Conditions P. SUNNY 68°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		OK
Concrete trough clear and function able	√		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

7-9-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		yes
Monitoring Wells (MW)			
Locks installed	✓		yes
MW's marked & identifiable	✓		Yes
General Site Condition			
Trees & brush cleared off security fence		✓	OK
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

7-7-14 - STARTED mowing site, 7-9-14 PUMPED 20,000 gal LEACHATE TO CITY of OSWEGO, monthly well Levels CONTINUED mowing site

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 8-6-14 Time 7:00

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 65°

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	V		NONE USABLE
Land cap irregularities (note anomaly)	V		OK
French drainage system clear and function able	V		OK
Concrete trough clear and function able	V		OK WILL NEED TRIMMING
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	V		Yes
Discharge Pump inspected & operational	V		Yes
Discharge pump oil level verified prior to use.	V		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	V		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	V		Off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	V		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	V		OK
Leachate holding tank metal roof inspected for structural integrity	V		OK

8-6-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		REPLACED LOCKS
MW's marked & identifiable	✓		Yes
General Site Condition			
Trees & brush cleared off security fence	✓		OK
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

QUARTERLY WELL LEVELS PUMP 20,000 GALLONS LEACHATE TO CITY OF OSWEGO
TOOK TWO 5 GAL LEACHATE SAMPLES FOR PILOT STUDY
CHANGED ALL LOCKS WITH NEW LOCKS KEY 2246 MASTER LOCK
TRIMMED AROUND SHED AND TANK

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 8-7-2014 Time 0800

Field Technician Kaminski Weather Conditions Cloudy 65°

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin		X	
Land cap irregularities (note anomaly)		X	
French drainage system clear and function able		X	
Concrete trough clear and function able		X	
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"			
Discharge Pump inspected & operational			
Discharge pump oil level verified prior to use.			
Discharge pump drained of residual water (drained upon completion of monthly discharge)			
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)			
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"			
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity			
Leachate holding tank metal roof inspected for structural integrity			

Leachate tank access doors locked (post pump out)			
Pump power panel(s) secured			
Monitoring Wells (MW)			
Locks installed			
MW's marked & identifiable			
General Site Condition			
Trees & brush cleared off security fence			
Perimeter security fence intact & free of damage		X	
Site access driveway inspected & free on snow & damage			
Security access gates / Padlock & chain serviceable			
Site gate signage intact			
Interior & exterior of utility storage shed inspected for damage & secure with locks			
Fire extinguisher serviceable, inspected, and inspection recorded			
Spill control material inspected & adequate			
PPE available and utilized as required			
Emergency contact information posted within shed			

Additional remarks (use separate sheet is required)

Monitor Well Cap.
Inspected Fence.

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 9-10-14 Time 7:30

Field Technician MARTin Koennecke Weather Conditions P-Sunny 62°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		Holes under back of shed, Filled in
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		OK
Concrete trough clear and function able	√		Vegetation growing in/started clearing
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		OK
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

9-10-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

MONTHLY LEACHATE PUMPING, 20,000 GAL TO CITY of OSWEGO

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 7-9-14 Time: 7:30

Field Technician MARTin Koennecke Weather Conditions P-Sunny 68°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11.5"	LCW-1	8:35	11:15		122 GPM	20,130
	LCW-2	8:35	11:15			
	LCW-3	8:35	9:00			
	LCW-4	8:35	11:15			
					Total	20,130

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:35	15:20	6.8	54°	650095	670190	20,095
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25 min	0	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 8-6-14 Time: 7:00

Field Technician MARTIN KOZMACKI Weather Conditions OVERCAST 65°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	8:40	INTERMITTENT TILL 13:30		1ST HOUR 127 GPM	
	LCW-2	8:40	" TILL 13:30			
	LCW-3	8:40	9:00			
	LCW-4	8:40	INTERMITTENT TILL 13:30			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:50	14:10	6.8	54°	670190	690190	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20 min	0	6"-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 9-10-14 Time: 7:30

Field Technician MARTIN Koennecke Weather Conditions P-Sunny 62°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:40	Intermittent - 11:40		129 GPM	20,000
	LCW-2	7:40	Intermittent - 11:40			
	LCW-3	7:40	7:55			
	LCW-4	7:40	9:40 / Intermittent Till 11:40			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:40	12:40	6.80	54°	690190	710195	20,005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20min	0	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ATTACHMENT A-3

QUARTERLY POTW DISCHARGE REPORTS
3RD QUARTER 2014

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

September 16, 2014

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 3rd Quarter PAS Oswego Progress Report 2014

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during 2014. This has been due to the EPA allowance of an alternate disposal method. However, with EPA approval we retain disposal of PAS Oswego wastewater at the Auburn POTW under Permit 2014-01 in the event that the current disposal method is unavailable in the future.

- **Cumulative gallons removed for discharge in Auburn 3rd Qtr. 2014 - 0**
- **Cumulative gallons removed for discharge in Auburn over 2014 - 0**

Since no wastewater was shipped or discharged to Auburn, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

for Diana L. Bock
Clay McClarnon

CMC/dlb

cc: PAS Management Committee

Allentown, PA • Clinton, NJ • Greensboro, GA • Knoxville, TN • San Diego, CA
Sarasota, FL • Houston, TX • Windsor, CT • Waltham, MA

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

Via electronic mail

September 30, 2014

Mr. Anthony A. Leotta, P.E.
City Engineer
City Hall
Oswego, New York 13126
tleotta@oswego.ny.org

Re: Quarterly Discharge Report – 3rd Quarter 2014
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2010-13

Dear Mr. Leotta:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2010-13 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from July 2014 through September 2014.

The total number of gallons of leachate discharged during the third quarter of 2014 is 60,100 gallons.The amount of leachate discharged during each monthly removal event is summarized in Table 1. A completed Leachate Discharge Form documenting the quantity of leachate discharged during each leachate removal event is included in Attachment I. The flow totalizer readings documenting quantities discharged, as well as date and time of each discharge event is provided on this form. Measurements for pH and temperature during each removal event are also recorded in the Leachate Discharge Form.

The next sample event is scheduled for November 2014.

If you need additional information please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachments

cc: Gary Hallinan – City of Oswego
John McGrath – City of Oswego
PAS Oswego Site Management Committee

C:\Users\Reception\Documents\GroupWise\Oswego POTW Quart Rpt 2014_3Q_Sept- 30- 2014.doc

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2014)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2010-13)

Discharge Quarter	4Q 2013		1Q 2014		2Q 2014		3Q 2014	
	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
	10/9/13	20,000	1/8/14	10,000	4/9/14	20,000	7/9/14	20,095
	54/6.6		48/6.75		44/6.8		54/6.8	
	11/6/13	10,000	2/4/14	10,000	5/7/14	20,000	8/6/14	20,000
	52/6.8		42/6.7		46/6.8		54/6.8	
	12/4/13	10,000	3/5/14	10,000	6/4/14	10,000	9/10/14	20,005
	52/6.7		52/6.8		50/6.8		54/6.8	
Total Discharged		40,000		30,000		50,000		60,100
Date Sampled*		11/6/2013		Not sampled		5/7/2014		Not sampled
Analytes**		mg/L		mg/L		mg/L		mg/L
Antinomy		ND <0.010				ND <0.00125		
Arsenic		**0.025**				**0.0198**		
Beryllium		ND <0.010				ND <0.00125		
Cadmium		ND <0.010				ND <0.0010		
Chromium (total)		0.012				ND <0.0085		
Copper		0.014				0.0177		
Cyanide		ND <0.010				ND <0.0050		
Lead		ND <0.010				0.00218		
Mercury		ND <0.00020				0.00000314		
Nickel		0.51				0.339		
Selenium		**ND <0.010**				**0.0056**		
Silver		ND <0.010				ND <0.00125		
Thallium		ND <0.02				ND <0.00125		
Zinc		ND <0.02				ND <0.0150		
VOC****		1204				NA		
SVOC****		ND				NA		
BOD 5		13				<3.0		
TSS		5.4				65		
Phenolics		0.12				0.103		
pH		6.7				6.7		

* Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2010-13.

** Analytes in bold incorporated February 8,2012 and are being evaluated for potential compliance changes by City of Oswego.

*** lb/day factor 0.16632@20k gal

**** Analytes included for permit pollutant analysis performed every three years

Analyte values in bold exceed limit

Prpared by de maximis, inc. 9/30/2014

ATTACHMENT I

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 7-9-14 Time: 7:30

Field Technician MARTin Koennecke Weather Conditions P-Sunny 68°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11.5"	LCW-1	8:35	11:15		122 Gpm	20,130
	LCW-2	8:35	11:15			
	LCW-3	8:35	9:00			
	LCW-4	8:35	11:15			
					Total	20,130

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:35	15:20	6.8	54°	650695	671190	20,495
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25 min	C	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 8-6-14 Time: 7:00

Field Technician Martin Kozmacki Weather Conditions overcast 65°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	8:40	Intermittent till 13:30		.75" Hook 127 GPM	
	LCW-2	8:40	" till 13:30			
	LCW-3	8:40	9:00			
	LCW-4	8:40	Intermittent till 13:30			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:50	14:10	6.8	54°	670190	690190	20,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20 min	6	6"5"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 9-10-14 Time: 7:30

Field Technician Marin Koennecke Weather Conditions P. Sunny 62°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
11"	LCW-1	7:40	Intermittent 11:40		129 GPM	20,000
	LCW-2	7:40	Intermittent 11:40			
	LCW-3	7:40	7:55			
	LCW-4	7:40	9:40 / Intermittent Till 11:40			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	8:40	12:40	6.80	54°	690190	710195	20,005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20min	0	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

II-B

4TH QUARTER REPORT 2014

QUARTERLY PROGRESS REPORT – 4th QUARTER 2014

Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: October – December (4th Quarter) 2014

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, New York by O'Brien & Gere Operations LLC, (O'Brien & Gere) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 40,000 gallons of leachate were removed from the Site during the period of October, November and December 2014. Specific quantities of leachate removed included 20,000 gallons in October, 10,000 gallons in November and 10,000 gallons in December. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of October, November and December 2014, leachate was pumped monthly from the PAS Site to the City of Oswego, New York sanitary sewer system, and was treated at the Oswego, New York Eastside Wastewater Treatment Facility located at 71 Mercer St. in Oswego, New York.

- Quarterly groundwater elevation monitoring was performed on November 3, 2014. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded onto the Pre-Pumping Well Monitoring Level Form. (Attachment B-1)

- The semi-annual ground water sampling was conducted on November 3, and 4, 2014 for long-term monitoring wells LR-6, LR-8, M-21 and leachate collection wells LCW-2 and LCW-4. Wells M-22 and OD-3 were also sampled during this event. Sampling activities for long-term monitoring wells were conducted using low-flow sampling protocols described in the Work Plan. Samples were preserved using industry standard methods, and delivered to Life Science Laboratories in East Syracuse, New York for analysis. (Attachment B-4)

- On November 5, 2014, semi-annual effluent sampling in conformance with the City of Oswego wastewater discharge permit 6-2010-13 was performed. One composite sample was collected by O'Brien & Gere during the discharge of leachate from the Site. The leachate sample was collected from a sample port located on the leachate effluent discharge pump. The composite sample was collected for laboratory analysis by combining three separately collected grab samples taken over the course of the leachate discharge

from the Site. The sample was preserved using industry standard methods delivered for analysis at Spectrum Laboratories in East Syracuse, New York. The results are included with the 4th Quarterly report submitted to the City of Oswego. (Attachment B-3)

- The treatability study performed under the pre-treatment agreement with the City of Oswego for As and Se was submitted to the City of Oswego as part of the 4th Quarter Report dated December 29, 2014. The results indicate the required Se levels were below standard EPA method detection levels and the As levels were not achievable with the tested methods. (Attachment B-3)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Sites Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system, and general Site conditions. (Attachment B-2) Monthly site maintenance activities included the following:

    - Light vegetation was removed by hand from the two Site concrete surface drainage troughs. Removal of small brush and fallen tree limbs was removed from the perimeter security fence of the Site.

    - The Site single French drainage system and two (2) concrete troughs were inspected and cleared of accumulated grass. No discrepancies were reported at the time of the inspection.

    - Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. No damage to the cap was observed.

    - Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, and insects, and were properly operating. The leachate holding tank was visually inspected for integrity, as was the leachate tank steel protective roof, and wood structure. No discrepancies were reported at the time of the inspection.

    - The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel were inspected. No discrepancies were reported at the time of the inspection.

- On October 8, November 5, and December 3, 2014, O'Brien & Gere performed the monthly pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. Observations were recorded on the Site Inspection Checklist. In advance of each leachate removal event, O'Brien & Gere notified the City of Oswego Eastside Wastewater Treatment Facility of the scheduled leachate discharge. Prior to each leachate discharge, the City of Oswego was notified. (Attachment B-2)

- Upon completing the monthly leachate collection system inspections, O'Brien & Gere manually energized four leachate collection pumps, identified as LCW-1, LCW-2 LCW-3, and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level

taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment B-2)

- During the months of October, November and December 2014. O'Brien & Gere pumped a combined total of 40,000 gallons of leachate into the leachate collection tank and then to the City of Oswego. Leachate was pumped using the Site discharge pumping system into the City of Oswego off-site sanitary sewer system. The leachate pumping system consists of one electrically powered centrifugal discharge pump, conveyance hose, discharge flow totalizer and leachate sampling port. This discharge system is located within the confines of the projects wooden utility shed. The amount of leachate discharged during each removal event, along with discharge flow totalizer amounts, pH, pump priming times, and leachate water temperatures were recorded on the Leachate Disposal Checklist for each monthly removal event. (Attachment B-2)

- Upon completing each monthly leachate discharge, the leachate discharge pump and tank suctions hoses were placed back into the leachate hold tank and the leachate pump system shutdown and prepared for storage. The concrete leachate hold tank was secured, as was the wooden maintenance shed. Upon the completion of monthly or quarterly site activities the Sites metal access gates were closed, and padlocked.

- The PAS Oswego Site quarterly discharge reports for the 4 th quarter of 2014 were submitted. The report to the City of Oswego was submitted on December 29, 2014 in accordance with permit 6-2010-13, and the report to the City of Auburn was submitted on December 5, 2014 in accordance with permit 2014-01. (Attachment B-3)

- The Institutional Control and Site Inspection was completed on November 5, 2014. This included interviews with the Industrial Precision Products facility manager and review of City and County records. (Attachment B-5)

DOCUMENTATION OF REMOVAL ACTIVITIES FOR PREVIOUS QUARTER

- The Groundwater Pre-pumping Well Monitoring Level Form for November 5, 2014, is attached to this report. (Attachment B-1)

- Site Inspection Checklist for October 8 & 23, November 5, and December 3, 2014 are attached to this report. (Attachment B-2)

- Leachate Disposal Checklist for October 8, November 5, and December 3, 2014 are attached to this report. (Attachment B-2)

- The PAS Quarterly Discharge reports submitted on December 29, 2014 to the City of Oswego including the semi-annual effluent data and on December 5, 2014 to the City of Auburn are attached. (Attachment B-3)

- Semi-annual well sampling for LR-6, LR-8 and M-21, M-22, and OD-3, and leachate collection wells LCW-2 and LCW-4 is attached. (Attachment B-4)

- Institutional Control inspection and record review is attached. (Attachment B-5)

ATTACHMENT B-1

GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 11-3-14 Technician - Martin Koenencke Month - November

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well level data) YES	Well Within Range (based on historical well level data) NO	Well Level Check (3rd) (If NO, 2 Wells not within Range)	NOTES
SWW1	289.33	9.70	8.62	11.62	11.02	11.02	✓			
SWW2	289.37	16.37	15.75	17.40	16.98	16.98	✓			
SWW3	286.50	17.29	16.60	17.92	17.96	17.96		✓	17.96	
SWW4	283.60	14.94	13.44	17.12	16.96	16.96	✓			
SWW5	277.02	13.38	12.55	14.22	14.66	14.66		✓	14.66	
SWW6	273.06	8.73	7.95	9.58	9.50	9.50	✓			
SWW7	277.93	8.73	8.02	9.43	9.26	9.26	✓			
SWW8	278.24	5.56	3.94	11.38	10.38	10.38	✓			
SWW9	285.55	18.56	17.48	20.05	20.06	20.06		✓	20.06	
SWW10	280.43	12.46	9.71	18.65	18.26	18.26	✓			
SWW11	273.50	9.64	8.81	10.86	11.48	11.48		✓	11.48	
SWW12	272.82	11.10	8.70	15.24	15.36	15.36		✓	15.36	
LCW-1	272.21	9.24	8.20	10.46	10.86	10.86		✓	10.86	
LCW-2	274.44	11.49	10.44	12.76	13.10	13.10		✓	13.10	
LCW-3	284.36	18.05	17.40	19.56	18.35	18.35	✓			
LCW-4	285.70	18.56	16.64	19.66	19.24	19.24	✓			
OS-1	272.10	12.22	8.60	16.60	14.84	14.84	✓			
OI-1	272.00	12.79	11.14	15.26	13.60	13.60	✓			
OS-3	277.89	15.90	13.92	18.58	18.08	18.08	✓			
OD-3	277.85	15.74	13.76	18.42	17.92	17.92	✓			
LD-3	278.62	6.23	4.32	11.77	10.75	10.75	✓			
LD-4	279.25	12.25	9.85	17.15	16.94	16.94	✓			
LD-5	272.94	12.03	9.10	15.75	15.86	15.86		✓	15.86	
LS-6	274.14	12.70	10.25	14.76	15.78	15.78		✓	15.78	
LD-6	274.03	11.42	10.12	12.86	13.88	13.88		✓	13.88	
LD-8	272.83	9.86	7.15	15.38	11.25	11.25	✓			
LR-2	289.85	13.55	12.70	14.96	14.87	14.87	✓			
LR-3	278.06	8.99	7.80	12.00	10.92	10.92	✓			
LR-6	274.39	10.99	10.05	12.72	12.43	12.43	✓			
LR-8	273.42	10.65	9.45	12.84	12.18	12.18	✓			
M-21	272.32	10.28	9.17	12.50	11.92	11.92	✓			
M-22	273.88	10.98	10.00	12.62	12.38	12.38	✓			
M-23	270.49	12.86	12.25	14.25	13.92	13.92	✓			

ATTACHMENT B-2

SITE INSPECTION CHECKLIST AND LEACHATE DISPOSAL CHECKLIST

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 12-3-14 Time 7:45

Field Technician MARTIN KOENNECKE Weather Conditions OVERCAST, 40°, RAIN'S HOURS

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		Yes
Concrete trough clear and function able	✓		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

12-3-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		Yes
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gallon Leachate To city of Oswego Treatment Plant.

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 11-5-14 Time 7:30

Field Technician MARTin Koennecke Weather Conditions overcast 48°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		Yes
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		Yes
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

11-5-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓	✓	WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		Yes
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Semi Annual well sampling 11-3-14 and 11-4-14, Quarterly well levels, Pumped 10,000 gal. Leachate To City of Oswego
Semi Annual Discharge sample Taken

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-23-14 Time 8:00

Field Technician MARTin Koennecke Weather Conditions P-Sunny

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE USABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		TRIMMED AND CLEARED
Concrete trough clear and function able	√		TRIMMED AND CLEARED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon compietion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

10-23-14

Leachate tank access doors locked (post pump out)	✓		YES
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		working on back of site
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

CLEARED CONCRETE TROUGH, WORKED ON CLEARING FENCE AT REAR of site

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-8-14 Time 8:00

Field Technician MARTIN Koennecke Weather Conditions P-SUNNY 59° W/RAIN SHOWERS

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	V		NONE VISABLE
Land cap irregularities (note anomaly)	V		OK
French drainage system clear and function able	V		Yes
Concrete trough clear and function able	V		BRUSHOGED EDGES NEEDS TO BE CLEANED UP OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	V		Yes
Discharge Pump inspected & operational	V		Yes
Discharge pump oil level verified prior to use.	V		OK
Discharge pump drained of residual water (drained upon completion of use)	V		Yes
Heat trace system operational & verified in the "ON" position (during wintertime periods)	V		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	V		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	V		OK
Leachate holding tank metal roof inspected for structural integrity	V		OK

10-8-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected	✓		OK
Security access gates function able	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

MONTHLY LEACHATE PUMP OUT 20,000 GALLONS TO CITY of OSWEGO
BRUSHOG AND TRIMMED CONCRETE TROUGHT, AROUND BUILDING AND TANK, TRIMMED FENCE LINE ALONG ROAD

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-3-14 Time: 745

Field Technician MARTIN Koewnicke Weather Conditions OVERCAST 40° RAIN SHOWERS

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:50	9:20	43"	112 GPM	10,065
	LCW-2	7:50	9:20			
	LCW-3	7:50	8:05			
	LCW-4	7:50	9:20			
					Total	10,065

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:40	11:40	6.8	48°	740195	750195	10,000 ~~10,065~~ AK
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83.3	20min	0	6-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 11-5-14 Time: 7:30

Field Technician Martin Koewnecke Weather Conditions overcast 48°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:30	9:00	43"	112 GPM	10,065
	LCW-2	7:30	9:00			
	LCW-3	7:30	7:45			
	LCW-4	7:30	9:00			
					Total	10,065

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:20	11:20	6.8	52°	730195	740195	10,000
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83	20mm	0	6"-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-5-14	Sample Port	composite 3gal	11:30	6.8	52°

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 10-8-14 Time: 8:00

Field Technician MARTIN KOENNECKE Weather Conditions P-SUNNY 59° N/RAIN SHOWERS

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	8:00	10:00/INTERMITTENT TILL 12:00		129	20,000
	LCW-2	8:00	10:00/INTERMITTENT TILL 12:00			
	LCW-3	8:00	8:20			
	LCW-4	8:00	930/INTERMITTENT TILL 12:00			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	13:30	6.8	53°	710195	730195	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.3	25min	0	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ATTACHMENT B-3

QUARTERLY POTW DISCHARGE ERPORTS
4TH QUARTER 2014

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

December 5, 2014

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 4th Quarter PAS Oswego Progress Report 2014

Dear Mr. O'Brien,

This letter confirms that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW during 2014. This has been due to the EPA allowance of an alternate disposal method. However, the PAS Site expects to ship material to the Auburn POTW under Permit 2014-01 in early 2015. OBG will coordinate the transport and discharge of the wastewater with Auburn.

- **Cumulative gallons removed for discharge in Auburn 4th Qtr. 2014 - 0**
- **Cumulative gallons removed for discharge in Auburn over 2014 - 0**

Since no wastewater was shipped or discharged to Auburn during the 4th quarter, no analytical testing was required. However, we continue to perform Site maintenance and sampling activities under the Operation, Monitoring and Maintenance Program for the Site approved by EPA. The data associated with that program indicate little change in the characteristics of the Site wastewater.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

CMC/dlb

cc: PAS Management Committee

Allentown, PA • Clinton, NJ • Greensboro, GA • Knoxville, TN • San Diego, CA
Sarasota, FL • Houston, TX • Windsor, CT • Waltham, MA

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

Via electronic mail

December 29, 2014

Mr. Anthony A. Leotta, P.E.
City Engineer
City Hall
Oswego, New York 13126
tleotta@oswego.ny.org

Re: Quarterly Discharge Report – 4th Quarter 2014
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2010-13

Dear Mr. Leotta:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2010-13 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from October 2014 through December 2014.

The total number of gallons of leachate discharged during the fourth quarter of 2014 is 40,000 gallons. The amount of leachate discharged during each monthly removal event is summarized in Table 1. A completed Leachate Discharge Form documenting the quantity of leachate discharged during each leachate removal event is included in Attachment I. The flow totalizer readings documenting quantities discharged, as well as date and time of each discharge event is provided on this form. Measurements for pH and temperature during each removal event are also recorded in the Leachate Discharge Form. The semi-annual discharge sampling event was performed on November 5, 2014. The results for that event are provided in Attachment II.

Also attached to this report is the Treatability Study performed for the PAS leachate (Attachment III). Unfortunately, the results of the Treatability Study indicate that the current Oswego pre-treatment requirements for Arsenic and Selenium are not achieved through use of the tested polymers. Although the report also identifies method detection and matrix concerns for confirming the 0.001 mg/L permit limit for Se, we propose to perform one additional test in January using chemical addition with pH adjustment. Although there appear to be method detection issues for Se, we agree to use Spectrum Labs for the January treatability test. The results of that test will be provided by January 30, 2015.

The next sample event is scheduled for January 2015 in conjunction with the proposed testing.

If you need additional information please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachments

cc: Gary Hallinan – City of Oswego
John McGrath – City of Oswego
PAS Oswego Site Management Committee

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2014)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2010-13)

Discharge Quarter	1Q 2013		2Q 2014		3Q 2014		4Q 2014	
	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
	1/8/14	10,000	4/9/14	20,000	7/9/14	20,095	10/8/14	20,000
	48/6.75		44/6.8		54/6.8		53/6.8	
	2/4/14	10,000	5/7/14	20,000	8/6/14	20,000	11/5/14	10,000
	42/6.7		46/6.8		54/6.8		52/6.8	
	3/5/14	10,000	6/4/14	10,000	9/10/14	20,005	12/3/14	10,000
	52/6.8		50/6.8		54/6.8		48/6.8	
Total Discharged		30,000		50,000		60,100		40,000
Date Sampled*		Not sampled		5/7/2014		8/6/2014		11/5/2014
Analytes**		mg/L		mg/L		mg/L		mg/L
Antinomy				ND <0.00125				ND<0.0016
Arsenic				**0.0198**		**0.015**		**0.024**
Beryllium				ND <0.00125				ND <0.0004
Cadmium				ND <0.0010				ND <0.0006
Chromium (total)				ND <0.0085				0.0119
Copper				0.0177				0.0134
Cyanide				ND <0.0050				ND <0.00440
Lead				0.00218				0.0025
Mercury				0.00000314				0.00008
Nickel				0.339				0.435
Selenium				**0.0056**		**0.01**		**0.0135**
Silver				ND <0.00125				ND <0.0016
Thallium				ND <0.00125				ND <0.00005
Zinc				ND <0.0150				ND <0.0036
VOC****				NA				NA
SVOC****				NA				NA
BOD_5				<3.0				43
TSS				65				58
Phenolics				0.103				0.093
pH				6.7				5.86

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2010-13.*

*** Analytes in bold incorporated February 8,2012 and are being evaluated for potential compliance changes by City of Oswego.*

**** lb/day factor 0.16632@20k gal*

***** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prpared by de maximis, inc. 12/17/2014

ATTACHMENT I

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 10-8-14 Time: 8:00

Field Technician Martin Koennecke Weather Conditions P. Sunny 57° N/RAIN SHOWERS

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10.5"	LCW-1	8:00	10:00 / Intermittent Till 12:00		129	20,000
	LCW-2	8:00	10:00 / Intermittent Till 12:00			
	LCW-3	8:00	8:20			
	LCW-4	8:00	930 / Intermittent Till 12:00			
					Total	20,000

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:30	13:30	6.8	53°	710195	730195	20,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.3	25 min	0	8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 11-5-14 Time: 7:30

Field Technician MARTIN Koennecke Weather Conditions OVERCAST 48°

Beginning Leachate Hold Tank Elevation (inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:30	9:00	43"	112 GPM	10,065
	LCW-2	7:30	9:00			
	LCW-3	7:30	7:45			
	LCW-4	7:30	9:00			
					Total	10,065

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:20	11:20	6.8	52°	730195	740195	10,000
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	20mm	0	6"-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-5-14	SAMPLE PORT	Composite 3gal	11:30	6.8	52°

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-3-14 Time: 745

Field Technician MARTIN Kownacke Weather Conditions overcast 40° RAIN 5 HOURS

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	7:50	9:20	43"	112 GPM	10,065
	LCW-2	7.50	9:20			
	LCW-3	7:50	8:05			
	LCW-4	7:50	9:20			
					Total	10,065

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	9:40	11:40	6.8	48°	740195	750195	10,000 MK
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.3	20min	0	6-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-8-14 Time 8:00

Field Technician MARTIN Koennecke Weather Conditions P-SUNNY/59° W/RAIN SHOWERS

Check V (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (Indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		Yes
Concrete trough clear and function able	✓		OK BRUSHOGED EDGES NEEDS TO BE CLEANED UP
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		OK
Discharge pump drained of residual water (drained upon completion of use)	✓		Yes
Heat trace system operational & verified in the "ON" position (during wintertime periods)	✓		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

10-8-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected	✓		OK
Security access gates function able	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Monthly Leachate Pump out 20,000 gallons To City of Oswego
Brushog and Trimmed concrete Trought, around Building and
Tank. Trimmed Fence Line Along Road

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 10-23-14 Time 8:00

Field Technician MARTin Koennecke Weather Conditions P-Sunny

Check V (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	V		NONE USABLE
Land cap irregularities (note anomaly)	V		OK
French drainage system clear and function able	V		TRIMMED AND CLEARED
Concrete trough clear and function abie	V		TRIMMED AND CLEARED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	V		Yes
Discharge Pump inspected & operational	V		Yes
Discharge pump oil level verified prior to use.	V		Yes
Discharge pump drained of residual water (drained upon compietion of monthly discharge)	V		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	V		off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	V		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	V		OK
Leachate holding tank metal roof inspected for structural integrity	V		OK

10-23-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		Working on Back of site
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Cleared Concrete Trough, worked on cleaning Fence at Rear of site

O'BRIEN & GERE

Site Inspection Checklist (v2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 11-5-14 Time 7:30

Field Technician Martin Koennicke Weather Conditions overcast 48°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		none visable
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		Yes
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		Yes
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

11-5-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓	✓	work in Progress
Perimeter security fence intact & free of damage	✓		Yes
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Semi Annual well sampling 11-3-14 and 11-4-14, Quarterly well levels, Pumped 10,000 gal. Leachate To City of Oswego Semi Annual Discharge sample Taken

O'BRIEN & GERE

Site Inspection Checklist (v2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 12-3-14 Time 7:45

Field Technician MARTIN KOENNECKE Weather Conditions OVERCAST, 40°, RAIN HEAVY

Check ✓ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		Yes
Concrete trough clear and function able	✓		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

12-3-14

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		Yes
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gallon Leachate To City of Oswego Treatment Plant.

ATTACHMENT II

Report Date:
20-Nov-14 16:06

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Brien & Gere Engineers
333 West Washington St.
Syracuse, NY 13221
Attn: Kevin Stone

Project: Oswego, NY
Project #: PAS Oswego

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB99233-01	Leachate Discharge	Ground Water	05-Nov-14 11:30	05-Nov-14 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 8 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality'web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 10.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

Analyses for Total Hardness, pH, and Total Residual Chlorine fall under the state of Pennsylvania code Chapter 252.6 accreditation by rule.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 200.8

Duplicates:

1427338-DUP1 *Source: SB99233-01*

Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.

Antimony

RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.

Selenium

The Reporting Limit has been raised to account for matrix interference.

Selenium

Samples:

SB99233-01 *Leachate Discharge*

The Reporting Limit has been raised to account for matrix interference.

Selenium

EPA 245.1/7470A

Spikes:

1426832-MS1 *Source: SB99233-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Mercury

Sample Acceptance Check Form

Client:	O'Brien & Gere Engineers - Syracuse, NY
Project:	Oswego, NY / PAS Oswego
Work Order:	SB99233
Sample(s) received on:	11/5/2014

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
1. Were custody seals present?	☐	☑	☐
2. Were custody seals intact?	☐	☐	☑
3. Were samples received at a temperature of ≤ 6°C?	☐	☑	☐
4. Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
5. Were samples refrigerated upon transfer to laboratory representative?	☐	☑	☐
6. Were sample containers received intact?	☑	☐	☐
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
8. Were samples accompanied by a Chain of Custody document?	☑	☐	☐
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
10. Did sample container labels agree with Chain of Custody document?	☑	☐	☐
11. Were samples received within method-specific holding times?	☑	☐	☐

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Leachate Discharge SB99233-01	PAS Oswego	Ground Water	05-Nov-14 11:30	05-Nov-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 200/6000 Series Methods													
	Preservation	Field Preserved		N/A			1	EPA 200/6000 methods			YR	1426344	
Total Metals by EPA 200 Series Methods													
7440-22-4	Silver	< 0.0016	U	mg/l	0.0050	0.0016	1	EPA 200.7	12-Nov-14	14-Nov-14	edt	1426820	X
7440-38-2	Arsenic	0.0240		mg/l	0.0040	0.0024	1	"	"	"	"	"	X
7440-41-7	Beryllium	< 0.0004	U	mg/l	0.0020	0.0004	1	"	"	"	"	"	X
7440-43-9	Cadmium	< 0.0006	U	mg/l	0.0025	0.0006	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0119		mg/l	0.0050	0.0014	1	"	"	"	"	"	X
7440-50-8	Copper	0.0134		mg/l	0.0050	0.0018	1	"	"	"	"	"	X
7439-97-6	Mercury	< 0.00008	U	mg/l	0.00020	0.00008	1	EPA 245.1/7470A	"	13-Nov-14	SMR	1426832	X
7440-02-0	Nickel	0.435		mg/l	0.0050	0.0016	1	EPA 200.7	"	14-Nov-14	edt	1426820	X
7439-92-1	Lead	0.0025	J	mg/l	0.0075	0.0020	1	"	"	"	"	"	X
7440-36-0	Antimony	0.00046		mg/l	0.00025	0.00012	1	EPA 200.8	17-Nov-14	19-Nov-14	edt	1427338	X
7782-49-2	Selenium	0.0135	R01, D	mg/l	0.00125	0.00023	5	"	"	19-Nov-14	"	"	X
7440-28-0	Thallium	< 0.00005	U	mg/l	0.00025	0.00005	1	"	"	19-Nov-14	"	"	X
7440-66-6	Zinc	0.0036	J	mg/l	0.0050	0.0033	1	EPA 200.7	12-Nov-14	14-Nov-14	edt	1426820	X
General Chemistry Parameters													
	Biochemical Oxygen Demand (5-day)	43.0		mg/l	37.5	1.53	1	SM5210B	06-Nov-14 16:35	17-Nov-14 10:59	DJB	1426436	X
57-12-5	Cyanide (total)	< 0.00440	U	mg/l	0.00500	0.00440	1	EPA 335.4 / SW846 9012B	12-Nov-14	12-Nov-14	RLT	1426894	X
	pH	5.86	pH	pH Units			1	ASTM D 1293-99B	06-Nov-14 18:47	06-Nov-14 19:00	DJB	1426457	
	Total Suspended Solids	58.0	LIV	mg/l	10.0	4.3	1	SM2540D	07-Nov-14	11-Nov-14	CMB	1426496	X
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
64743-03-9	Phenolics	0.093		mg/L	0.015	0.015	1	E420.4	07-Nov-14	07-Nov-14	11301	291546A	

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1426820 - EPA 200 Series										
Blank (1426820-BLK1)					Prepared: 12-Nov-14 Analyzed: 14-Nov-14					
Nickel	< 0.0016	U	mg/l	0.0016						
Lead	< 0.0020	U	mg/l	0.0020						
Zinc	< 0.0033	U	mg/l	0.0033						
Beryllium	< 0.0004	U	mg/l	0.0004						
Cadmium	< 0.0006	U	mg/l	0.0006						
Chromium	< 0.0014	U	mg/l	0.0014						
Copper	< 0.0018	U	mg/l	0.0018						
Arsenic	< 0.0024	U	mg/l	0.0024						
Silver	< 0.0016	U	mg/l	0.0016						
LCS (1426820-BS1)					Prepared: 12-Nov-14 Analyzed: 14-Nov-14					
Zinc	**1.28**		mg/l	0.0033	1.25		102	85-115		
Nickel	**1.28**		mg/l	0.0016	1.25		102	85-115		
Lead	**1.30**		mg/l	0.0020	1.25		104	85-115		
Beryllium	**1.41**		mg/l	0.0004	1.25		113	85-115		
Cadmium	**1.32**		mg/l	0.0006	1.25		106	85-115		
Chromium	**1.32**		mg/l	0.0014	1.25		105	85-115		
Copper	**1.31**		mg/l	0.0018	1.25		105	85-115		
Arsenic	**1.27**		mg/l	0.0024	1.25		102	85-115		
Silver	**1.23**		mg/l	0.0016	1.25		98	85-115		
Batch 1426832 - EPA200/SW7000 Series										
Blank (1426832-BLK1)					Prepared: 12-Nov-14 Analyzed: 13-Nov-14					
Mercury	< 0.00008	U	mg/l	0.00008						
LCS (1426832-BS1)					Prepared: 12-Nov-14 Analyzed: 13-Nov-14					
Mercury	**0.00470**		mg/l	0.00008	0.00500		94	85-115		
Duplicate (1426832-DUP1)			Source: SB99233-01		Prepared: 12-Nov-14 Analyzed: 13-Nov-14					
Mercury	< 0.00008	U	mg/l	0.00008		BRL				20
Matrix Spike (1426832-MS1)			Source: SB99233-01		Prepared: 12-Nov-14 Analyzed: 13-Nov-14					
Mercury	**0.00385**	QM7	mg/l	0.00008	0.00500	BRL	77	80-120		
Batch 1427338 - EPA 200 Series										
Blank (1427338-BLK1)					Prepared: 17-Nov-14 Analyzed: 19-Nov-14					
Antimony	**0.00017**	J	mg/l	0.00012						
Selenium	< 0.00005	U	mg/l	0.00005						
Thallium	< 0.00005	U	mg/l	0.00005						
LCS (1427338-BS1)					Prepared: 17-Nov-14 Analyzed: 19-Nov-14					
Antimony	**0.0564**	D	mg/l	0.00124	0.0500		113	85-115		
Selenium	**0.280**	D	mg/l	0.00047	0.250		112	85-115		
Thallium	**0.0543**	D	mg/l	0.00048	0.0500		109	85-115		
Duplicate (1427338-DUP1)			Source: SB99233-01		Prepared: 17-Nov-14 Analyzed: 19-Nov-14					
Selenium	**0.00902**	QR9, R01, D	mg/l	0.00023		0.0135			40	20
Antimony	**0.00064**	QR8	mg/l	0.00012		0.00046			33	20
Thallium	< 0.00005	U	mg/l	0.00005		BRL				20
Matrix Spike (1427338-MS1)			Source: SB99233-01		Prepared: 17-Nov-14 Analyzed: 19-Nov-14					
Selenium	**0.267**	D	mg/l	0.00047	0.250	0.0135	97	70-130		
Antimony	**0.0537**	D	mg/l	0.00124	0.0500	0.00046	107	70-130		
Thallium	**0.0505**	D	mg/l	0.00048	0.0500	BRL	101	70-130		
Post Spike (1427338-PS1)			Source: SB99233-01		Prepared: 17-Nov-14 Analyzed: 19-Nov-14					
Selenium	**0.245**	D	mg/l	0.00047	0.250	0.0135	93	85-115		
Antimony	**0.0524**	D	mg/l	0.00124	0.0500	0.00046	104	85-115		
Thallium	**0.0492**	D	mg/l	0.00048	0.0500	BRL	98	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1426436 - General Preparation										
Blank (1426436-BLK1)						Prepared: 06-Nov-14 Analyzed: 17-Nov-14				
Biochemical Oxygen Demand (5-day)	< 1.53	U	mg/l	1.53						
Blank (1426436-BLK2)						Prepared: 06-Nov-14 Analyzed: 17-Nov-14				
Biochemical Oxygen Demand (5-day)	< 1.53	U	mg/l	1.53						
LCS (1426436-BS1)						Prepared: 06-Nov-14 Analyzed: 17-Nov-14				
Biochemical Oxygen Demand (5-day)	170		mg/l	1.53	198		86	85-115		
Reference (1426436-SRM1)						Prepared: 06-Nov-14 Analyzed: 17-Nov-14				
Biochemical Oxygen Demand (5-day)	107		mg/l	1.53	95.8		112	64-136		
Reference (1426436-SRM2)						Prepared: 06-Nov-14 Analyzed: 17-Nov-14				
Biochemical Oxygen Demand (5-day)	108		mg/l	1.53	95.8		113	64-136		
Batch 1426457 - General Preparation										
Reference (1426457-SRM1)						Prepared & Analyzed: 06-Nov-14				
pH	5.99		pH Units		6.00		100	97.5-102.5		
Reference (1426457-SRM2)						Prepared & Analyzed: 06-Nov-14				
pH	6.01		pH Units		6.00		100	97.5-102.5		
Batch 1426496 - General Preparation										
Blank (1426496-BLK1)						Prepared: 07-Nov-14 Analyzed: 11-Nov-14				
Total Suspended Solids	< 2.2	U	mg/l	2.2						
LCS (1426496-BS1)						Prepared: 07-Nov-14 Analyzed: 11-Nov-14				
Total Suspended Solids	100		mg/l	4.3	100		100	90-110		
Batch 1426894 - General Preparation										
Blank (1426894-BLK1)						Prepared & Analyzed: 12-Nov-14				
Cyanide (total)	< 0.00440	U	mg/l	0.00440						
Blank (1426894-BLK2)						Prepared & Analyzed: 12-Nov-14				
Cyanide (total)	< 0.00440	U	mg/l	0.00440						
LCS (1426894-BS1)						Prepared & Analyzed: 12-Nov-14				
Cyanide (total)	0.285		mg/l	0.00440	0.300		95	90-110		
LCS (1426894-BS2)						Prepared & Analyzed: 12-Nov-14				
Cyanide (total)	0.288		mg/l	0.00440	0.300		96	90-110		
Reference (1426894-SRM1)						Prepared & Analyzed: 12-Nov-14				
Cyanide (total)	0.331		mg/l	0.00440	0.385		86	65-135		

Subcontracted Analyses - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 291546A - 291546										
BLK (BH37157-BLK)			Source: BH37157			Prepared & Analyzed: 07-Nov-14				
Phenolics	< 0.015		mg/L	0.015				-		
DUP (BH37157-DUP)			Source: BH37157			Prepared & Analyzed: 07-Nov-14				
Phenolics	< 0.015		mg/L	0.015				-	NC	20
LCS (BH37157-LCS)			Source: BH37157			Prepared & Analyzed: 07-Nov-14				
Phenolics	ND		mg/L				94.3	85-115		20
MS (BH37157-MS)			Source: BH37157			Prepared & Analyzed: 07-Nov-14				
Phenolics	ND		mg/L				84.0	75-125		20

Notes and Definitions

D	Data reported from a dilution
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR8	Analyses are not controlled on RPD values from sample concentrations that are less than 5 times the reporting level. The batch is accepted based upon the difference between the sample and duplicate is less than or equal to the reporting limit.
QR9	RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.
R01	The Reporting Limit has been raised to account for matrix interference.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
pH	The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt.
LIV	The initial volume for this sample has been reduced due to sample matrix and/or historical data therefore elevating the reporting limit.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
June O'Connor

SB99233

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Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

☑ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: ______

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Kevin Stone
OBRIEN & GERE
333 West Washington ST.
Syracuse NY
Telephone #: 315-440-0493
Project Mgr: Kevin.Stone@obg.com

Invoice To: ______
P.O No.: ______ Quote/RQN: ______

Project No: PAS Oswego
Site Name: ______
Location: Oswego NY State: NY
Sampler(s): Martin Koennecke

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= ______ 12= ______

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= ______ X2= ______ X3= ______

G= Grab C=Compsite

List Preservative Code below: 3 | | 4 | 5

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total Phenols	BOD, TSS, PH	Metals w/ Sel, Chloride...	Cyanide (CN)	Check if chlorinated	State-specific reporting standards
9923301	Leachate Discharge	11-5-14	11:30	G	WW		1		3	1	1	1	1	☐	metals see ATT LIST

2.1/0.6 IR 01
11/5/14

0.1/0.0/0.0 IR 3

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other: ______
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp °C
Martin Koennecke	[signature]	11-5-14	13:10	Observed
[signature]	[signature]	11/5/14	4:48	Correction Factor
[signature]	[signature]	11/5/14	2/10	Corrected
				IR ID#

☐ EDD format: ______
☐ E-mail to: ______

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☑ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

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Rev. Jan 2014

WASTEWATER DISCHARGE PERMIT FOR SIGNIFICANT INDUSTRIAL USERS

PART I. - WASTEWATER DISCHARGE LIMITATION AND MONITORING REQUIREMENTS:

A. During the period June 1, 2010 to December 31, 2013, the Permittee, Pollution Abatement Services Site (PAS) of Oswego, NY (Site) is authorized to discharge its leachate to the City of Oswego Sewer System.

B. During this same period it is understood that based on historical data, PAS will typically discharge between 15,000–20,000 gallons of leachate each month. PAS will provide an annual schedule of anticipated discharge dates to the City at the beginning of each year and notify the City of any changes in a timely fashion. It is anticipated that PAS leachate will typically be discharged in the first week of each month. In addition, the discharge from the site shall not exceed the following limitations:

Industry Discharge Limitation

Parameter	Daily Maximum Loading
1. Flow	.03 MGD*
2. Temperature	(See Section D. 3)
3. pH No less than 5.0	Instantaneous / No more than 10.5 Instantaneous
4. TSS	100 lbs/da
5. BOD	50 lbs/da
6. Antimony	0.003 mg/l
7. Arsenic	0.007 mg/l
8. Beryllium	0.005 mg/l
9. Cadmium	0.11 lbs/da
10. Chromium (Total)	2.49 lbs/da
11. Copper	0.11 lbs/da
12. Cyanide	0.17 lbs/da
13. Lead	0.05 lbs/da
14. Mercury**	0.0002 mg/l / 0.00004 lbs/da
15. Nickel	0.25 lbs/da
16. Selenium	0.001 mg/l
17. Silver	0.25 lbs/da
18. Thallium	0.003 mg/l
19. Zinc	0.50 lbs/da
20. Total Phenols	0.34 lbs/da

* Multiple daily discharge events may be performed during any month.
** Concentration based on flow discharge of .03 mgd.

ATTACHMENT III

O'BRIEN & GERE

December 24, 2014

Mr. Clay McClarnon
de maximis, inc.
450 Montbrook Lane
Knoxville, TN 37919

RE: Report Se & As treatability (PAS Oswego)
FILE: 5597/51412

Dear Clay:

O'Brien & Gere is pleased to provide de maximis with this report for evaluation of groundwater treatment at the Pollution Abatement Services (PAS) Oswego, New York (Site). This report was prepared in accordance with O'Brien & Gere's January 30, 2014 proposal. To facilitate your review, this report is organized as follows:

- Project background
- Testing methods and results
- Selenium analytical detection limit
- Conclusions and recommendations

PROJECT BACKGROUND

It is understood that arsenic (As) & selenium (Se) discharge concentrations within the existing collection system exceed the pre-treatment limits provided in City of Oswego permit modification dated February 28, 2012. As such, O'Brien & Gere proposed evaluating two adsorbent media to quantify the potential reduction of these constituents prior to discharge.

It was noted that the pre-treatment discharge limits for As and Se are 0.007 mg/L and 0.001 mg/L, respectively. Therefore, an investigation of laboratory procedures and feasibility of meeting the detection limit for selenium was also conducted.

TESTING METHODS AND RESULTS

A five (5)-gallon sample of groundwater was obtained on August 6, 2014 from the site for testing. The concentration of As and Se in this sample was 0.015 mg/L and <0.010 mg/L, respectively. These were analyzed using EPA Method 200.7 (ICP) using Life Science Laboratories, Inc (LSL) (NYS Certification #10248).

Two types of media were used for batch isotherm jar testing: a granular ferric hydroxide (ASG) media and a granular zero-valent iron (ZVI) media. For each medium, five discrete dosages were tested. Following addition of the media, the samples were mixed in glass containers on a gang stirrer for an 8-hour period. At the end of the 8-hour period, the media was separated from each test aliquot by filtration through a 0.45-µm membrane filter. Each filtrate was quantified for As and Se using EPA Method 200.7 (ICP) via LSL.

Testing results are provided in Table 1, below.

Table 1 - Batch Isotherm Data

Sample ID	ASG Mg	As mg/L	Se mg/L	Sample ID	ZVI mg	As mg/L	Se mg/L
ASG-0	0	0.015	<0.01	ZVI-0	0	0.015	<0.01
ASG-1	15.0	0.015	<0.01	ZVI-1	14.3	0.015	<0.01
ASG-2	31.0	0.015	<0.01	ZVI-2	30.6	0.015	<0.01
ASG-3	62.5	0.015	<0.01	ZVI-3	59.2	0.015	<0.01
ASG-4	118.8	0.015	<0.01	ZVI-4	105.6	0.015	<0.01
ASG-5	173.4	0.016	<0.01	ZVI-5	153.8	0.016	<0.01

Note: The detection level (PQL) for As using EPA Method 200.7 is 0.010 mg/L.
The detection level (PQL) for Se using EPA Method 200.7 is 0.010 mg/L.

SUMMARY OF RESULTS

ARSENIC

As can be seen in Table 1, there was no removal of As. This can be contributed to two potential factors:

- The primary factor is likely the low initial value of As. At 0.015 mg/L, it is very difficult to achieve further reduction due to lack of driving force of As to adsorb to the solid, as well as potential equilibrium between the dissolved and adsorbed As at that low concentration.
- Secondarily, there may be minor impacts depending on the valence state of arsenic present (arsenite: As^{+3} and arsenate: As^{+5}). Selectivity of adsorption to the media can depend on valence state.

SELENIUM

The removal of selenium could not be evaluated because the initial was below the analytical detection value of 0.010 mg/L.

INVESTIGATION OF SELENIUM ANALYTICAL METHODS AND DETECTION LIMITS

There are six methods that were found to be provided through commercial laboratories:

- ICP-MS EPA 200.8
- PC ICP-MS EPA 1640 RP
- ICP-DRC-MS Modified EPA 200.8 / Modified EPA 1638
- GFAAS EPA 200.9 / SM 3113B
- HGAAS SM3114B
- HGAFS (It is unclear if this has an approved method. It may be considered a modified SM3114B)

Regardless of lab method availability, three fundamental questions were identified:

1) Is 0.001 mg/L achievable with any of the methods?

2) What is the reporting limit achievable for the PAS ground water matrix and the Oswego WW matrix?

3) Is the method an EPA approved method?

Specifically under this scope, both ICP and ICP-MS detection limits were evaluated at a local lab and that lab could not provide the required PQL given the existing background matrix interferences in the PAS Oswego groundwater. Because the sample exhibited high background dissolved solids, potential false positives for Se in the MS were of concern. Therefore, ICP was used for treatability testing, as indicated in Testing Methods and Results.

The following review of available information is assumed to be related to "clean" water samples (those with no background interferences):

Brook Rand Laboratories

Available publications from BrookRand Labs show MDLs of 0.070 µg/L, with a reporting limit of 0.2 µg/L for saline waters (EPA Method 1640 RP) and a 0.024/0.19 µg/L MDL, with a reporting limit of 0.040/0.50 µg/L(EPA Methods 1638 DRC/Method 1638).

Of note, the information indicates that wastewater samples are typically diluted 50X, which would result in reporting limits of 0.002/0.025 mg/L, for EPA Methods 1638 DRC/Method 1638.

Frontier GeoSciences

A 2005 article on ICP-DRC-MS suggests a MDL of 0.010 µg/L.

Applied Speciation – Bothell, WA

The major issue with hydride generation methods (HGAAS, HGFAS) is that they are operationally limited to the quantification of arsenite and selenite in solution; requiring pretreatment to convert all arsenic and selenium species to arsenite and selenite before analysis. Due to this inherent limitation, these methods can only provide "total reducible" arsenic and selenium and not "total" results that ICP-MS can provide.

In addition, the complexity of the sample matrix can alter the efficiency of the reduction procedure or the hydride generation reaction. The interferences from transition metals, dissolved organic carbon, and salinity are very well documented and allow for significant biases associated with complex matrices, especially at trace levels.

Research Environmental & Industrial Consultants – Beaver, WV

It was posted in 2010 that Hydride Generation Atomic Fluorescence Spectroscopy (HGAFS) can reliably and accurately measure selenium in water at levels less than one part per billion (<0.001 mg/L), according to laboratory director Dr. Clarence Haile. This is a significant improvement over the Graphite Furnace Atomic Absorption Spectroscopy (GFAAS) currently used by most labs. REIC's HGAFS procedure is essentially a modification of a current method, replacing the absorption detector with a more sensitive fluorescence detector. The fluorescence detector is not only more sensitive, it is also less susceptible to interferences.

West Virginia Study

A 2010 study commissioned by the WV DEP shows that several of these analysis techniques could be used in a clean water matrix to obtain a method detection limit (MDL) of 0.005 mg/L. This study did not focus on achieving lower results. However, an important conclusion of this study is the relative precision between methods and anticipated impacts of background matrix interferences.

In the presence of common mine-related interferences, GFAA and ICP/MS show difficultly in accurately quantifying Selenium. ICP/MS appears to have difficulty even detecting Selenium in more contaminated samples, without using extraordinary techniques to examine each sample.

The gaseous hydride technique seems to generate the best data when used in a routine manner, regardless of whether the AA (Atomic Absorption) or AF (Atomic Fluorescence) detection technology is used, although this observation is based on a small sample set as only two laboratories assessed used this technique.

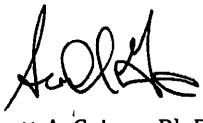
If one is to generate acceptable data by GFAA or ICP/MS in the presence of difficult matrices, some additional practices will have to be employed. For GFAA and ICP/MS mine related samples present inherent problems with detection and quantification of Selenium.

CONCLUSIONS AND RECOMMENDATIONS

- An independent review of the City of Oswego headworks analysis report and basis of limit establishment for both As and Se would be recommended.
- Additional evaluation/testing to identify a feasible treatment approach to meet the 0.007 mg/L discharge limit for As and the 0.001 mg/L discharge limit for Se will be required, if this limit remains to be enforceable.
- The treatability of Se could not be assessed, because the concentration was below analytical detection in the sample received for testing.
- It is believed based on the information reviewed that obtaining a laboratory method to achieve a PQL of <0.001 mg/L for Se may be difficult given the groundwater background matrix.

O'Brien & Gere appreciates this opportunity to provide continued services to de maximis, inc. Should you have any questions regarding this report, please feel free to contact Frank DeOrio at (315)956-6222 (Frank.DeOrio@obg.com) or me at (315) 956-6534 (Scott.Grieco@obg.com).

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.



Scott A. Grieco, Ph.D., P.E.
Vice President

cc: Tee Tong-Ngork – O'Brien & Gere
Nonnie Lim – O'Brien & Gere
Kevin Stone – O'Brien & Gere

ATTACHMENT B-4

SEMI-ANNUAL LEACHATE AND GROUNDWATER MONITORING NOVEMBER 2014

MEMORANDUM

TO: Kevin Stone **cc:**

FROM: Karen Storne

RE: PAS Oswego Data Validation Report

FILE: 6363/51412.260.045

DATE: December 30, 2014

This report presents the results of a data validation performed for groundwater samples collected as part of the PAS Oswego Semi-Annual Ground Water Sampling event at the New York State site. Sample collection activities were conducted by O'Brien & Gere in November 2014.

The environmental samples, trip blank, equipment blank, field duplicate, matrix spike and matrix spike duplicate collected for this investigation were analyzed by Life Science Laboratories, Inc. (LSL) of East Syracuse, New York.

LSL utilized the methods listed in the following table.

Table 1-1. *Analytical methods and references*

Parameter	Method	Reference
VOCs	USEPA Methods 5030B/8260C	1

Note:

1. United States Environmental Protection Agency (USEPA). 2006. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846,* 3rd Edition. Washington D.C.

VOCs indicates volatile organic compounds.

The laboratory data packages generated by LSL contained summary forms for quality control analysis and supportive raw data.

The samples that were submitted to the laboratory for review are presented in Attachment A. Attachment B presents the specific data validation approach applied to data generated for this investigation. Attachment C presents the laboratory QA/QC analyses definitions.

Full validation was performed on the samples collected for this sampling event.

The analytical data generated for this investigation were evaluated by O'Brien & Gere using the quality assurance/quality control (QA/QC) information presented in the methods utilized by the laboratory.

Data affected by excursions from criteria presented in the method are qualified using guidance provided in the following document and professional judgment:

- USEPA. 2014. *USEPA Region II Standard Operating Procedure For the Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C,* SOP HW-24, Revision 4. New York, NY.

The validation included checking the following parameters:

- Chain-of-custody record
- Sample collection
- Holding times and sample preservation
- Blank analysis

- Calibrations
- Gas chromatography/mass spectrometry (GC/MS) instrument check
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) analysis
- Laboratory control sample (LCS) analysis
- Internal standards performance
- Field duplicate analysis
- Target analyte quantification, identification, and quantitation limits (QLs)
- Documentation completeness

The following sections of this memorandum present the result of the comparison of the analytical data to the QA/QC criteria specified the methods, the validation criteria applied to this analysis, and the qualifiers assigned to the data when the QA/QC criteria were not met. Excursions that resulted in the qualification of samples and additional observations are presented in the following sections.

VOC DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results:

- Chain-of-custody record
- Sample collection
- Holding times and sample preservation
- GC/MS instrument check
- Surrogate recoveries
- MS/MSD analysis
- LCS analysis
- Internal standards performance
- Field duplicate analysis
- Target analyte identification
- Documentation completeness

Excursions from method or validation criteria and additional observations are described below.

I. Calibrations

Due to a minor initial calibration accuracy excursions, the following sample results were qualified as approximate (UJ, J):

- Dichlordifluoromethane, chloromethane, vinyl chloride, bromomethane, trichlorofluoromethane, methyl acetate, carbon tetrachloride, 1,1,2-trichloroethane and 1,2,4-trichlorobenzene in samples Equipment Blank, M-21, OD-3, LR-8, X-1[OD-3], LR-6, M-22, LCW-2, LCW-4 and Trip Blank.

II. Blank analysis

Due to minor blank representativeness excursions, the following sample results were qualified as non-detected (U):

- Acetone and toluene in samples OD-3, LR-8, X-1[OD-3], and LCW-2.
- Methylene chloride in sample LCW-2.

IV. Target analyte quantitation and QLs

The qualifier "J" was applied by the laboratory when the analyte concentration was greater than the MDL but less than the QL. This qualifier has been retained during the validation process to indicate that the result is considered to be approximate.

Dilutions were performed for samples LCW-2 and LCW-4 due to the presence of elevated target analytes.

DATA USABILITY

Overall data usability with respect to completeness for the sample results reported is 100 percent for the organic data. The data were identified as usable for qualitative and quantitative purposes. Based on the validation performed, the typical completeness goal of 95 percent was met for these analyses.

ATTACHMENT A

Sample Cross Reference List

Table 2. *Sample cross reference list*

Laboratory	Date Collected	Laboratory ID	Client ID	Matrix	Analysis Requested
Life Science Labs	11/3/2014	K1411015-001	Equipment Blank	Aqueous	VOCs
Life Science Labs	11/3/2014	K1411015-002	M-21	Groundwater	VOCs
Life Science Labs	11/3/2014	K1411015-003	OD-3	Groundwater	VOCs
Life Science Labs	11/3/2014	K1411015-004	LR-8	Groundwater	VOCs
Life Science Labs	11/3/2014	K1411015-005	X-1[OD-3]	Groundwater	VOCs
Life Science Labs	11/4/2014	K1411015-006	LR-6	Groundwater	VOCs
Life Science Labs	11/4/2014	K1411015-007	M-22	Groundwater	VOCs
Life Science Labs	11/4/2014	K1411015-008	LCW-2	Groundwater	VOCs
Life Science Labs	11/4/2014	K1411015-009	LCW-4	Groundwater	VOCs
Life Science Labs	11/4/2014	K1411015-010	Trip Blank	Aqueous	VOCs

Notes:
Life Science Labs indicates Life Science Laboratories Inc., Syracuse, New York
VOCs indicates volatile organic compounds.
MS/MSD indicates matrix spike/ matrix spike duplicate.
The sample utilized for field duplicate location is listed in brackets.

ATTACHMENT B

Data Validation Approach

O'Brien & Gere Data validation approach based on USEPA Region II Data validation guidelines for SW-846 analytical methods: VOCs (8260C).	
General Validation Approach	The validation approach taken by O'Brien & Gere is a conservative one; qualifiers are applied to sample data to indicate both major and minor excursions so that data associated with any type of excursion are identified to the data user. Major excursions result in data being rejected (R), indicating that the data are considered unusable for either quantitative or qualitative purposes. Minor excursions result in sample data being qualified as approximate (J, UJ, JN) or non-detected (U) that is otherwise usable for quantitative or qualitative purposes.
	Excursions are subdivided into excursions that are within the laboratory's control and those that are out of the laboratory's control. Excursions involving laboratory control sample recovery, calibration response, method blank excursions, low or high spike recovery due to inaccurate spiking solutions or poor instrument response, holding times, interpretation errors, and quantitation errors are within the control of the laboratory. Excursions resulting from matrix spike recovery, serial dilution recovery, surrogate, and internal standard performance due to interference from the matrix of the samples are examples of those excursions that are not within the laboratory's control if the laboratory has followed proper method procedures, including performing appropriate cleanup techniques.
Applying professional judgment	USEPA data validation directs professional judgment to be used when applying qualifiers in some cases. When utilizing professional judgment, provide justification for actions taken in the associated validation notes.
Validation Parameter	O'Brien & Gere Data Validation Approach based on Region II guidelines for SW-846 methods, current as of June 2014. Since Region II guidelines available for metals apply only to the CLP method, only the general approach to applying qualifiers was utilized for metals and inorganics.
Validation Qualifiers	U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the quantitation limit (QL). J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the QL). J+ The result is an approximated quantity, but the result may be biased high. J- The result is an approximated quantity, but the result may be biased low. NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. UJ - The analyte was not detected at a level greater than or equal to the QL. However, the QL is approximate and may be inaccurate or imprecise. R - The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample. EMPC- Estimated maximum possible concentration is characterized by a response with a signal to noise of at least 2.5 for both the quantitation ions but does not meet all the identification criteria specified in the method.
Cooler Temperature	Results for samples submitted for organic and inorganic analyses that are impacted by coolers that did not contain ice, or if the ice melted upon receipt and the cooler temperatures are greater than 10°C, are qualified as approximate (UJ, J). If samples are delivered to the laboratory the same day as sample collection and samples did not have sufficient time to reach 10°C, samples are not qualified, unless proper preservation was not provided for samples between sample collection and sample receipt at the laboratory. Results for samples received at ambient temperature involved in extended shipment-day issues may be rejected, applying professional judgment.
Water sample collection for VOCs	If headspace or air bubbles are observed in VOC containers, the VOC data is qualified as approximate (UJ, J).
Holding Time for Organics	Results for samples properly preserved and analyzed outside of but less than two times the holding time window established in the method or the QAPP for preparation and/or analysis are qualified as approximate (UJ, J). Non-detected results for samples properly preserved and analyzed greater than two times the holding time window for preparation and/or analysis are rejected (R). Detected results for samples properly preserved and analyzed greater than two times the holding time window for preparation and/or analysis are qualified as approximate (J). The entire sample target list for a VOC sample impacted by a holding time excursion is qualified.

O'Brien & Gere Data validation approach based on USEPA Region II Data validation guidelines for SW-846 analytical methods: VOCs (8260C).	
Calibration Actions for Organics	Due to relative standard deviation (RSD) calibration excursions, detected results for analytes in samples associated with the calibration are qualified as approximate (J). Non-detected results associated with RSD excursions may be qualified as approximate (UJ) based on professional judgment. If the RSD calibration excursion is greater than 90, detected results for analytes in samples associated with the calibration are qualified as approximate (J) and non-detected results may be rejected (R), applying professional judgment. Due to %D calibration verification excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated sample may be considered in applying qualifiers. For response factor excursions, detected results are qualified as approximate (J) and non-detected results are rejected (R). For initial calibration verifications (ICV) excursions, detected and non-detected results for analytes in samples associated with the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated sample may be considered in applying qualifiers.
VOCs Calibration Evaluation	VOC target analytes are evaluated using the criteria of 20 (<15% for EPA 8260B) percent relative standard deviation (%RSD) or correlation coefficient of 0.990 for initial calibration curves. If RSD >20%, detected results are qualified as approximate (J) and non-detected results are qualified using professional judgment. Initial calibrations and calibration verifications are also evaluated using the response factor (RF) criteria listed in Table 4 or >0.050 for those compounds with no listed RRF and greater than 0.010 for ketones, alcohols, acrolein and 1,4-dioxane). If RRF is less than method requirements, qualify detected results as approximate (J) and non-detected results are unusable (R). ICV recoveries (opening CCV) are evaluated using laboratory control limits if available or 70 to 130% or a %D of less than 30. Calibration verifications (CCVs) are evaluated using a criterion of 20 percent difference (%D) for target analytes. If %D is not meet for ICV and CCV, qualify detected and non-detected results as approximate (J, UJ).
Associating samples with Field and Laboratory QC Samples	Trip blanks are associated with samples in the same sample cooler.
	Equipment blanks (Rinsate blanks) are associated with samples collected in the same day (or sampling event) using the same sample collection equipment and decontamination solutions. When sampling equipment or decontamination solutions are changed, a new equipment blank should be collected. Each sample should be associated with one equipment blank, which is collected as close to the sample collection date/time as possible. Use professional judgment.
	Field blanks are associated with the sample containers used to collect samples. When sampling container lots are changed, a new field blank should be collected.
	Method blanks are associated with samples prepared at the same time (if preparation is required) or analyzed in the same analytical batch as the samples. Method blanks should reflect the sample matrix type (aqueous, low level solid, medium level solid).
	LCSs are associated with samples prepared at the same time (if preparation is required) or analyzed in the same analytical batch as the samples.
	MS/MSD and laboratory duplicate samples are collected in the field. The laboratory must prepare using project samples. MS/MSDs and laboratory duplicates are associated with samples prepared at the same time or close to the same time (if preparation is required) with the same matrix type.
	Field duplicates are collected in the field and are associated with samples of the same matrix type.
	In the case that insufficient QC samples are provided due to field or laboratory problems, use professional judgment to associate each sample with a QC sample that reflects the sample matrix and analysis conditions. If insufficient QC samples are available to properly associate samples, record the impact in the DV notes.

O'Brien & Gere Data validation approach based on USEPA Region II Data validation guidelines for SW-846 analytical methods: VOCs (8260C).	
Evaluation and Action for MS/MSD, LCS, Surrogate and Field Duplicate Data for VOCs	The laboratory control limit (CL) is used to assess MS/MSD, LCS, surrogate and laboratory duplicate data. Refer to Region II guidelines if laboratory control limits are not available.
	In the case that excursions are identified in more than one quality control sample of the same matrix within one sample delivery group, samples are batched according to sample preparation or analysis date and qualified accordingly (see batching description above).
	If percent recoveries are less than laboratory CLs but greater than 10%, non-detected and detected results are qualified as approximate (UJ, J).
	If percent recoveries are greater than laboratory CLs, detected results are qualified as approximate (J).
	If percent recoveries are less than 10%, detected results are qualified as approximate (J) and non-detected results are qualified as rejected (R).
	If RPDs for MSDs or laboratory duplicates are outside of laboratory CLs, detected results are qualified as approximate (J). Non-detected results may not be qualified, applying professional judgment.
	Qualification is performed only when both MS and MSD recoveries are outside of laboratory CLs.
	Organic data are rejected (R) in the case that both MS/MSD recoveries are less than 10%.
	Qualification is not performed if MS/MSD or surrogate recoveries are outside of laboratory CLs with an analysis that applied a dilution factor of 10 times or more, applying professional judgment.
	Qualification of data associated with MS/MSD or field duplicate excursions is limited to the un-spiked sample or the field duplicate pair, respectively.
	Field duplicate data are evaluated against relative percent difference (RPD) criteria of less than 50 percent for aqueous samples and less than 100 percent for soils when results are greater than or equal to five times the QL. When a field duplicate result is less than five times the QL, a control limit of plus or minus two times the QL (difference criterion) is applied. If RPDs or differences are outside of criterion, detected and non-detected results are qualified as approximate (UJ, J) to indicate minor excursions.
Evaluation and Actions for Blank Results (Method, Field, Equipment, Instrument, Storage) for Organics	Blanks are not qualified due to contamination of another blank. Sample results qualified as non-detected (U) are treated as hits when qualifying for surrogate or calibration excursions. The following approach is utilized for applying qualifiers, using twice the quantitation limit (QL) for methylene chloride, 2-butanone and acetone: 1. For blank results less than the QL, samples with concentrations less than the QL are reported at the QL and qualified as non-detected (U). Samples with concentrations greater than or equal to the QL are not qualified or may apply the Blank Rule Option. 2. For blank results greater than the QL, samples with concentrations less than the QL are reported at the QL and qualified as non-detected (U). Samples with concentrations greater than or equal to the QL and less than the blank contamination level are reported and qualified as non-detected (U). Samples with concentrations greater than or equal to the QL and greater than or equal to the blank contamination level are not qualified or may apply the Blank Rule Option. 3. For blank results equal to the QL, sample concentrations less than the QL are reported at the QL value and qualified as non-detected (U). Samples greater than or equal to the QL are not qualified or may apply the Blank Rule Option. 4. For gross contamination in blanks (saturated peaks, interference peaks, poor baselines), all associated sample detected results are rejected (R) or qualified as non-detected (U) using professional judgment. Blank Rule Option: If methylene chloride, acetone, 2-butanone, or phthalates are detected in the sample at a concentration that is less than ten times the concentration in the associated blank, the sample result is qualified as "U". If other target analytes are detected in the sample at a concentration that is less than five times the concentration detected in the associated blank, the sample result is qualified as "U".

O'Brien & Gere Data validation approach based on USEPA Region II Data validation guidelines for SW-846 analytical methods: VOCs (8260C).	
Evaluation of Internal Standards for Organics	Internal standard recoveries are evaluated using control limits of from 50% of the lower standard area to 100% of the upper standard area of the associated calibration verification standard. The results associated with internal standard area recoveries 25% or greater but less than 50% are qualified as approximate (J, UJ). Non-detected results associated with internal standard area recoveries less than 25% are rejected (R), using professional judgment.
Target Analyte Identifications for Organics	If incorrect target analyte identifications were made due to data interpretation or laboratory transcription errors, the associated result will be corrected or rejected (R), applying professional judgment.
Source O'Brien & Gere	

ATTACHMENT C

Definitions of QA/QC Terms

Laboratory QA/QC term definitions	
QA/QC Term	Definition
Quantitation limit	The level above which numerical results may be obtained with a specified degree of confidence; the minimum concentration of an analyte in a specific matrix that can be identified and quantified above the method detection limit and within specified limits of precision and bias during routine analytical operating conditions.
Method detection limit	The minimum concentration of an analyte that undergoes preparation similar to the environmental samples and can be reported with a stated level of confidence that the analyte concentration is greater than zero.
Instrument detection limit	The lowest concentration of a metal target analyte that, when directly inputted and processed on a specific analytical instrument, produces a signal/response that is statistically distinct from the signal/response arising from equipment "noise" alone.
Gas chromatography/mass spectrometry (GC/MS) instrument performance check	Performed to verify mass resolution, identification, and to some degree, instrument sensitivity. These criteria are not sample specific; conformance is determined using standard materials.
Calibration	Compliance requirements for satisfactory instrument calibration are established to verify that the instrument is capable of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of analysis and calibration verifications document satisfactory maintenance and adjustment of the instrument on a day-to-day basis.
Relative Response Factor	A measure of the relative mass spectral response of an analyte compared to its internal standard. Relative Response Factors are determined by analysis of standards and are used in the calculation of concentrations of analytes in samples.
Relative standard deviation	The standard deviation divided by the mean; a unit-free measure of variability.
Correlation coefficient	A measure of the strength of the relationship between two variables.
Relative Percent Difference	Used to compare two values; the relative percent difference is based on the mean of the two values, and is reported as an absolute value, i.e., always expressed as a positive number or zero.
Percent Difference	Used to compare two values; the percent difference indicates both the direction and the magnitude of the comparison, i.e., the percent difference may be either negative, positive, or zero.
Percent Recovery	The act of determining whether or not the methodology measures all of the target analytes contained in a sample.
Calibration blank	Consists of acids and reagent water used to prepare metal samples for analysis. This type of blank is analyzed to evaluate whether contamination is occurring during the preparation and analysis of the sample.
Method blank	A water or soil blank that undergoes the preparation procedures applied to a sample (i.e., extraction, digestion, clean-up). These samples are analyzed to examine whether sample preparation, clean-up, and analysis techniques result in sample contamination.
Field/equipment	Collected and submitted for laboratory analysis, where appropriate. Field/equipment blanks are handled in the same manner as environmental samples. Equipment/field blanks are analyzed to assess contamination introduced during field sampling procedures.
Trip blank	Consist of samples of analyte-free water that have undergone shipment from the sampling site to the laboratory in coolers with the environmental samples submitted for volatile organic compound (VOC) analysis. Trip blanks will be analyzed for VOCs to determine if contamination has taken place during sample handling and/or shipment. Trip blanks will be utilized at a frequency of one each per cooler sent to the laboratory for VOC analysis.
Internal standards performance	Compounds not found in environmental samples which are spiked into samples and quality control samples at the time of sample preparation for organic analyses. Internal standards must meet retention time and recovery criteria specified in the analytical method. Internal standards are used as the basis for quantitation of the target analytes.
Surrogate recovery	Compounds similar in nature to the target analytes but not expected to be detected in the environmental media which are spiked into environmental samples, blanks, and quality control samples prior to sample preparation for organic analyses. Surrogates are used to evaluate analytical efficiency by measuring recovery.
Laboratory control sample Matrix spike blank analyses	Standard solutions that consist of known concentrations of the target analytes spiked into laboratory analyte-free water or sand. They are prepared or purchased from a certified manufacturer from a source independent from the calibration standards to provide an independent verification of the calibration procedure. They are prepared and analyzed following the same procedures employed for environmental sample analysis to assess method accuracy independently of sample matrix effects.
Laboratory duplicate	Two or more representative portions taken from one homogeneous sample by the analyst and analyzed in the same laboratory.

Laboratory QA/QC term definitions	
Matrix	The material of which the sample is composed or the substrate containing the analyte of interest, such as drinking water, waste water, air, soil/sediment, biological material.
Matrix Spike (MS)	An aliquot of a matrix (water or soil) fortified (spiked) with known quantities of specific target analytes and subjected to the entire analytical procedure in order to indicate the appropriateness of the method for the matrix by measuring recovery.
Matrix spike duplicate (MSD)	A second aliquot of the same matrix as the matrix spike that is spiked in order to determine the precision of the method.
Retention time	The time a target analyte is retained on a GC column before elution. The identification of a target analyte is dependent on a target compound's retention time falling within the specified retention time window established for that compound.
Relative retention time	The ratio of the retention time of a compound to that of a standard.
Source O'Brien & Gere	

Life Science Laboratories, Inc.

Date: *21-Nov-14*

CLIENT: O'Brien & Gere Operations, LLC
Project: PAS Oswego-Semi-Annual Well Sampling
Lab Order: K1411015

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
K1411015-001A	Equipment Blank 11/3/14		11/3/2014	11/4/2014
K1411015-002A	M-21 11/3/14		11/3/2014	11/4/2014
K1411015-003A	OD-3 11/3/14		11/3/2014	11/4/2014
K1411015-004A	LR-8 11/3/14		11/3/2014	11/4/2014
K1411015-005A	X-1 11/3/14 [OD-3]		11/3/2014	11/4/2014
K1411015-006A	LR-6 11/4/14 MS/MSD		11/4/2014	11/4/2014
K1411015-007A	M-22 11/4/14		11/4/2014	11/4/2014
K1411015-008A	LCW-2 11/4/14		11/4/2014	11/4/2014
K1411015-009A	LCW-4 11/4/14		11/4/2014	11/4/2014
K1411015-010A	QC Trip Blanks 11/4/14		11/3/2014	11/4/2014

K1411015

Chain of Custody Record

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Client: O'BRIEN & GERE Phone # 315-956-6100
Address: 333 West Washington Street Fax #
Syracuse NY 13221-4873

Authorization:

Contact Person: KEVIN STONE
Kevin.Stone@obg.com
315-440-0793

LSL Project #:

Client's Site I.D.: PAS Oswego

Client's Project I.D.: PAS Oswego Semi Annual well sampling event

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
001	Equipment Blank	11-3-14	11:30	X		water		3	40ml	8260		
002	M-21	11-3-14	13:30	X		water		3	40ml	8260		
003	OD-3	11-3-14	15:00	X		water		3	40ml	8260		
004	LR-8	11-3-14	16:05	X		water		3	40ml	8260		
005	X-1	11-3-14	—	X		water		3	40ml	8260		
006	LR-6, MS, MSD	11-4-14	8:50	X		water		9	40ml	8260		
007	M-22	11-4-14	10:20	X		water		3	40ml	8260		
008	LCW-2	11-4-14	12:00	X		water		3	40ml	8260		
009	LCW-4	11-4-14	13:10	X		water		3	40ml	8260		
010	QC Trip Blank	10-30-14				water		2	40ml	8260		

Notes and Hazard Identifications:

Custody Transfers		Date	Time
Sampled By: Martin Kowalski	Received By:	11-4-14	16:00
Relinquished By: Martin Kowalski	Received By:		
Relinquished By:	Received for Lab By:	11-4-14	16:00
Shipment Method:	Samples Received Intact: Y N	4.5°C on Ice ✓	

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-001A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*Equipment Blank 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 11:30
Matrix:	WATER Q	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7981.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:07
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:07
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:07
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:07
Chloroethane	ND		1.00	0.33	µg/L	1	11/13/14 13:07
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:07
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 13:07
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Acetone	2.98	J	10.0	1.00	µg/L	1	11/13/14 13:07
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 13:07
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 13:07
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 13:07
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 13:07
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 13:07
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Cyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 13:07
Benzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 13:07
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 13:07
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 13:07
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 13:07
Toluene	0.10	J	0.50	0.10	µg/L	1	11/13/14 13:07
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 13:07
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 13:07
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 13:07

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698075 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-001A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*Equipment Blank 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 11:30
Matrix:	WATER Q	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/17/14 10:18	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7981.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 13:07
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/13/14 13:07
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 13:07
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/13/14 13:07
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:07
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 13:07
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:07
Surr: 1,2-Dichloroethane-d4	121		75-130	0.16	%REC	1	11/13/14 13:07
Surr: Toluene-d8	99		75-125	0.10	%REC	1	11/13/14 13:07
Surr: 4-Bromofluorobenzene	104		75-125	0.10	%REC	1	11/13/14 13:07

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698075 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-002A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 13:30
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7982.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:36
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:36
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:36
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 13:36
Chloroethane	0.69	J	1.00	0.33	µg/L	1	11/13/14 13:36
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:36
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 13:36
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Acetone	ND		10.0	1.00	µg/L	1	11/13/14 13:36
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 13:36
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 13:36
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 13:36
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 13:36
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 13:36
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Cyclohexane	0.31	J	0.50	0.10	µg/L	1	11/13/14 13:36
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 13:36
Benzene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 13:36
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 13:36
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 13:36
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 13:36
Toluene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 13:36
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 13:36
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 13:36

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698328 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-002A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 13:30
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7982.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 13:36
Chlorobenzene	1.88		0.50	0.10	µg/L	1	11/13/14 13:36
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/13/14 13:36
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 13:36
Isopropylbenzene	0.18	J	0.50	0.10	µg/L	1	11/13/14 13:36
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 13:36
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/13/14 13:36
1,2-Dichlorobenzene	0.19	J	0.50	0.10	µg/L	1	11/13/14 13:36
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 13:36
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 13:36
Surr: 1,2-Dichloroethane-d4	122		75-130	0.16	%REC	1	11/13/14 13:36
Surr: Toluene-d8	102		75-125	0.10	%REC	1	11/13/14 13:36
Surr: 4-Bromofluorobenzene	102		75-125	0.10	%REC	1	11/13/14 13:36

Qualifiers:			
	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698328 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-003A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*OD-3 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 15:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7983.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:05
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:05
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:05
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:05
Chloroethane	4.69		1.00	0.33	µg/L	1	11/13/14 14:05
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:05
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 14:05
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Acetone	~~2.49~~ 10	U	10.0	1.00	µg/L	1	11/13/14 14:05
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 14:05
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 14:05
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 14:05
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 14:05
1,1-Dichloroethane	0.10 (J)		0.50	0.10	µg/L	1	11/13/14 14:05
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 14:05
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 14:05
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Cyclohexane	1.76		0.50	0.10	µg/L	1	11/13/14 14:05
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 14:05
Benzene	2.20		0.50	0.10	µg/L	1	11/13/14 14:05
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 14:05
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Methylcyclohexane	0.14 (J)		0.50	0.10	µg/L	1	11/13/14 14:05
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 14:05
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 14:05
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 14:05
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 14:05
Toluene	~~0.28~~ 0.50	U	0.50	0.10	µg/L	1	11/13/14 14:05
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 14:05
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 14:05
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 14:05

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698329 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-003A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*OD-3 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 15:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7983.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 14:05
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 14:05
Chlorobenzene	26.3		0.50	0.10	µg/L	1	11/13/14 14:05
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Xylenes (total)	0.31	J	1.00	0.30	µg/L	1	11/13/14 14:05
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 14:05
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 14:05
Isopropylbenzene	1.10		0.50	0.10	µg/L	1	11/13/14 14:05
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:05
1,3-Dichlorobenzene	0.10	J	0.50	0.10	µg/L	1	11/13/14 14:05
1,4-Dichlorobenzene	1.30		0.50	0.16	µg/L	1	11/13/14 14:05
1,2-Dichlorobenzene	0.82		0.50	0.10	µg/L	1	11/13/14 14:05
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 14:05
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:05
Surr: 1,2-Dichloroethane-d4	101		75-130	0.16	%REC	1	11/13/14 14:05
Surr: Toluene-d8	99		75-125	0.10	%REC	1	11/13/14 14:05
Surr: 4-Bromofluorobenzene	99		75-125	0.10	%REC	1	11/13/14 14:05

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698329 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-004A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-8 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 16:05
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/17/14 10:18	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7984.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:35
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:35
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:35
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 14:35
Chloroethane	4.22		1.00	0.33	µg/L	1	11/13/14 14:35
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:35
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 14:35
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Acetone	~~1.25~~ 10	U	10.0	1.00	µg/L	1	11/13/14 14:35
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 14:35
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 14:35
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 14:35
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 14:35
1,1-Dichloroethane	0.13	J	0.50	0.10	µg/L	1	11/13/14 14:35
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 14:35
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 14:35
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Cyclohexane	2.93		0.50	0.10	µg/L	1	11/13/14 14:35
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 14:35
Benzene	4.31		0.50	0.10	µg/L	1	11/13/14 14:35
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 14:35
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Methylcyclohexane	0.16	J	0.50	0.10	µg/L	1	11/13/14 14:35
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 14:35
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 14:35
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 14:35
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 14:35
Toluene	~~0.37~~ 0.50	U	0.50	0.10	µg/L	1	11/13/14 14:35
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 14:35
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 14:35
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 14:35

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698330 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-004A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-8 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 16:05
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7984.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 14:35
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 14:35
Chlorobenzene	17.6		0.50	0.10	µg/L	1	11/13/14 14:35
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Xylenes (total)	0.34	J	1.00	0.30	µg/L	1	11/13/14 14:35
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 14:35
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 14:35
Isopropylbenzene	1.01		0.50	0.10	µg/L	1	11/13/14 14:35
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 14:35
1,3-Dichlorobenzene	0.13	J	0.50	0.10	µg/L	1	11/13/14 14:35
1,4-Dichlorobenzene	0.91		0.50	0.16	µg/L	1	11/13/14 14:35
1,2-Dichlorobenzene	0.68		0.50	0.10	µg/L	1	11/13/14 14:35
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 14:35
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 14:35
Surr: 1,2-Dichloroethane-d4	115		75-130	0.16	%REC	1	11/13/14 14:35
Surr: Toluene-d8	100		75-125	0.10	%REC	1	11/13/14 14:35
Surr: 4-Bromofluorobenzene	99		75-125	0.10	%REC	1	11/13/14 14:35

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698330 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-005A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	X-1 11/3/14 [DD-3]
W Order:	K1411015	**Collection Date:**	11/03/14 0:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7985.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:04
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:04
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:04
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:04
Chloroethane	4.65		1.00	0.33	µg/L	1	11/13/14 15:04
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:04
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 15:04
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Acetone	~~1.81 J~~ 10	~~U~~	~~10.0~~	1.00	µg/L	1	11/13/14 15:04
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 15:04
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 15:04
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 15:04
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 15:04
1,1-Dichloroethane	0.11	(J)	0.50	0.10	µg/L	1	11/13/14 15:04
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 15:04
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 15:04
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Cyclohexane	1.73		0.50	0.10	µg/L	1	11/13/14 15:04
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 15:04
Benzene	2.44		0.50	0.10	µg/L	1	11/13/14 15:04
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 15:04
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Methylcyclohexane	0.12	(J)	0.50	0.10	µg/L	1	11/13/14 15:04
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 15:04
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 15:04
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 15:04
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 15:04
Toluene	~~0.29 J~~ 0.50	~~U~~	~~0.50~~	0.10	µg/L	1	11/13/14 15:04
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 15:04
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 15:04
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 15:04

Qualifiers:			
	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698331 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Buttermut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-005A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*X-1 11/3/14*
W Order:	K1411015	**Collection Date:**	11/03/14 0:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7985.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 15:04
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 15:04
Chlorobenzene	25.1		0.50	0.10	µg/L	1	11/13/14 15:04
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Xylenes (total)	0.32	J	1.00	0.30	µg/L	1	11/13/14 15:04
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 15:04
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 15:04
Isopropylbenzene	1.23		0.50	0.10	µg/L	1	11/13/14 15:04
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:04
1,3-Dichlorobenzene	0.11	J	0.50	0.10	µg/L	1	11/13/14 15:04
1,4-Dichlorobenzene	1.30		0.50	0.16	µg/L	1	11/13/14 15:04
1,2-Dichlorobenzene	0.81		0.50	0.10	µg/L	1	11/13/14 15:04
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 15:04
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:04
Surr: 1,2-Dichloroethane-d4	116		75-130	0.16	%REC	1	11/13/14 15:04
Surr: Toluene-d8	99		75-125	0.10	%REC	1	11/13/14 15:04
Surr: 4-Bromofluorobenzene	101		75-125	0.10	%REC	1	11/13/14 15:04

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698331 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-006A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-6 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 8:50
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7986.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:33
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:33
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:33
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 15:33
Chloroethane	ND		1.00	0.33	µg/L	1	11/13/14 15:33
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:33
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 15:33
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Acetone	ND		10.0	1.00	µg/L	1	11/13/14 15:33
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 15:33
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 15:33
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 15:33
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 15:33
1,1-Dichloroethane	1.75		0.50	0.10	µg/L	1	11/13/14 15:33
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 15:33
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Cyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 15:33
Benzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 15:33
Trichloroethene	0.14	J	0.50	0.10	µg/L	1	11/13/14 15:33
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 15:33
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 15:33
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 15:33
Toluene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 15:33
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 15:33
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 15:33

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698332 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-006A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-6 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 8:50
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7986.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 15:33
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/13/14 15:33
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 15:33
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/13/14 15:33
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 15:33
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 15:33
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 15:33
Surr: 1,2-Dichloroethane-d4	124		75-130	0.16	%REC	1	11/13/14 15:33
Surr: Toluene-d8	101		75-125	0.10	%REC	1	11/13/14 15:33
Surr: 4-Bromofluorobenzene	100		75-125	0.10	%REC	1	11/13/14 15:33

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698332 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-22 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 10:20
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7987.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 16:03
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 16:03
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 16:03
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 16:03
Chloroethane	ND		1.00	0.33	µg/L	1	11/13/14 16:03
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 16:03
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 16:03
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Acetone	ND		10.0	1.00	µg/L	1	11/13/14 16:03
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 16:03
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 16:03
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 16:03
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 16:03
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 16:03
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Cyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 16:03
Benzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 16:03
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 16:03
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 16:03
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 16:03
Toluene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 16:03
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 16:03
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 16:03

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698333 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-22 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 10:20
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7987.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/13/14 16:03
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/13/14 16:03
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 16:03
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/13/14 16:03
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 16:03
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 16:03
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 16:03
Surr: 1,2-Dichloroethane-d4	125		75-130	0.16	%REC	1	11/13/14 16:03
Surr: Toluene-d8	99		75-125	0.10	%REC	1	11/13/14 16:03
Surr: 4-Bromofluorobenzene	100		75-125	0.10	%REC	1	11/13/14 16:03

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698333 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-008A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 12:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/17/14 10:18	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7988.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	10.0	1.00	µg/L	10	11/13/14 16:32
Chloromethane	ND	UJ	10.0	3.30	µg/L	10	11/13/14 16:32
Vinyl chloride	71.2	J	10.0	3.30	µg/L	10	11/13/14 16:32
Bromomethane	ND	UJ	10.0	3.30	µg/L	10	11/13/14 16:32
Chloroethane	33.0		10.0	3.30	µg/L	10	11/13/14 16:32
Trichlorofluoromethane	ND	UJ	10.0	1.00	µg/L	10	11/13/14 16:32
1,1-Dichloroethene	ND		5.00	1.60	µg/L	10	11/13/14 16:32
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	J	5.00	1.00	µg/L	10	11/13/14 16:32
Acetone	~~43.2~~ 100	~~J~~ UJ	100	10.0	µg/L	10	11/13/14 16:32
Carbon disulfide	ND		5.00	1.10	µg/L	10	11/13/14 16:32
Methyl acetate	ND	UJ	50.0	10.0	µg/L	10	11/13/14 16:32
Methylene chloride	2.30	J	20.0	1.60	µg/L	10	11/13/14 16:32
trans-1,2-Dichloroethene	ND		5.00	1.00	µg/L	10	11/13/14 16:32
Methyl tert-butyl ether	ND		10.0	1.60	µg/L	10	11/13/14 16:32
1,1-Dichloroethane	18.5		5.00	1.00	µg/L	10	11/13/14 16:32
cis-1,2-Dichloroethene	71.0		5.00	1.00	µg/L	10	11/13/14 16:32
2-Butanone	ND		100	10.0	µg/L	10	11/13/14 16:32
Chloroform	2.60	J	5.00	1.00	µg/L	10	11/13/14 16:32
1,1,1-Trichloroethane	15.5		5.00	1.00	µg/L	10	11/13/14 16:32
Cyclohexane	ND		5.00	1.00	µg/L	10	11/13/14 16:32
Carbon tetrachloride	ND	UJ	5.00	1.00	µg/L	10	11/13/14 16:32
Benzene	718 ~~866 E~~		~~5.00~~ 10	~~1.00~~ 2.0	µg/L	~~10~~ 20	~~11/13/14 16:32~~ 11/14/14
1,2-Dichloroethane	ND		5.00	1.60	µg/L	10	11/13/14 16:32
Trichloroethene	9.20		5.00	1.00	µg/L	10	11/13/14 16:32
Methylcyclohexane	ND		5.00	1.00	µg/L	10	11/13/14 16:32 12/5/14
1,2-Dichloropropane	ND		5.00	1.60	µg/L	10	11/13/14 16:32 (20)
Bromodichloromethane	ND		5.00	1.00	µg/L	10	11/13/14 16:32
cis-1,3-Dichloropropene	ND		5.00	1.60	µg/L	10	11/13/14 16:32
4-Methyl-2-pentanone	ND		50.0	10.0	µg/L	10	11/13/14 16:32
Toluene	5.0 ~~1.78~~	~~J~~ U	5.00	1.00	µg/L	10	11/13/14 16:32
trans-1,3-Dichloropropene	ND		5.00	1.60	µg/L	10	11/13/14 16:32
1,1,2-Trichloroethane	ND	UJ	5.00	1.60	µg/L	10	11/13/14 16:32
Tetrachloroethene	33.7		5.00	1.00	µg/L	10	11/13/14 16:32
2-Hexanone	ND		50.0	10.0	µg/L	10	11/13/14 16:32

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698334 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-008A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 12:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/17/14 10:18	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7988.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		5.00	1.00	µg/L	10	11/13/14 16:32
1,2-Dibromoethane	ND		5.00	1.60	µg/L	10	11/13/14 16:32
Chlorobenzene	210		5.00	1.00	µg/L	10	11/13/14 16:32
Ethylbenzene	82.2		5.00	1.00	µg/L	10	11/13/14 16:32
Xylenes (total)	63.4		10.0	3.00	µg/L	10	11/13/14 16:32
Styrene	ND		5.00	1.00	µg/L	10	11/13/14 16:32
Bromoform	ND		10.0	3.30	µg/L	10	11/13/14 16:32
Isopropylbenzene	3.70	(J)	5.00	1.00	µg/L	10	11/13/14 16:32
1,1,2,2-Tetrachloroethane	ND		5.00	1.00	µg/L	10	11/13/14 16:32
1,3-Dichlorobenzene	ND		5.00	1.00	µg/L	10	11/13/14 16:32
1,4-Dichlorobenzene	ND		5.00	1.60	µg/L	10	11/13/14 16:32
1,2-Dichlorobenzene	10.4		5.00	1.00	µg/L	10	11/13/14 16:32
1,2-Dibromo-3-chloropropane	ND		50.0	10.0	µg/L	10	11/13/14 16:32
1,2,4-Trichlorobenzene	ND	UJ	10.0	1.00	µg/L	10	11/13/14 16:32
Surr: 1,2-Dichloroethane-d4	111		75-130	1.60	%REC	10	11/13/14 16:32
Surr: Toluene-d8	98		75-125	1.00	%REC	10	11/13/14 16:32
Surr: 4-Bromofluorobenzene	92		75-125	1.00	%REC	10	11/13/14 16:32

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698334 **Project Supervisor:** Anthony Crescenzi

see prior page for all results 12/4h

Life Science Laboratories, Inc. Analytical Results

5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900 StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-008ADL
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 12:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27807
Revision:	11/17/14 10:24 **TestCode:** 8260W_OLM42	**FileID:**	1-DL-J8013.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		20.0	2.00	µg/L	20	11/14/14 11:41
Chloromethane	ND		20.0	6.60	µg/L	20	11/14/14 11:41
Vinyl chloride	68.6		20.0	6.60	µg/L	20	11/14/14 11:41
Bromomethane	ND		20.0	6.60	µg/L	20	11/14/14 11:41
Chloroethane	30.4		20.0	6.60	µg/L	20	11/14/14 11:41
Trichlorofluoromethane	ND		20.0	2.00	µg/L	20	11/14/14 11:41
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	11/14/14 11:41
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
Acetone	ND		200	20.0	µg/L	20	11/14/14 11:41
Carbon disulfide	ND		10.0	2.20	µg/L	20	11/14/14 11:41
Methyl acetate	ND		100	20.0	µg/L	20	11/14/14 11:41
Methylene chloride	ND		40.0	3.20	µg/L	20	11/14/14 11:41
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	11/14/14 11:41
Methyl tert-butyl ether	ND		20.0	3.20	µg/L	20	11/14/14 11:41
1,1-Dichloroethane	13.8		10.0	2.00	µg/L	20	11/14/14 11:41
cis-1,2-Dichloroethene	78.4		10.0	2.00	µg/L	20	11/14/14 11:41
2-Butanone	ND		200	20.0	µg/L	20	11/14/14 11:41
Chloroform	2.00	J	10.0	2.00	µg/L	20	11/14/14 11:41
1,1,1-Trichloroethane	14.4		10.0	2.00	µg/L	20	11/14/14 11:41
Cyclohexane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
Carbon tetrachloride	ND		10.0	2.00	µg/L	20	11/14/14 11:41
Benzene	718		10.0	2.00	µg/L	20	11/14/14 11:41
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	11/14/14 11:41
Trichloroethene	8.60	J	10.0	2.00	µg/L	20	11/14/14 11:41
Methylcyclohexane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	11/14/14 11:41
Bromodichloromethane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/14/14 11:41
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	11/14/14 11:41
Toluene	ND		10.0	2.00	µg/L	20	11/14/14 11:41
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/14/14 11:41
1,1,2-Trichloroethane	ND		10.0	3.20	µg/L	20	11/14/14 11:41
Tetrachloroethene	30.2		10.0	2.00	µg/L	20	11/14/14 11:41
2-Hexanone	ND		100	20.0	µg/L	20	11/14/14 11:41

Qualifiers:			
	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698343 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-008ADL
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 12:00
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27807
Revision:	11/17/14 10:24 **TestCode:** 8260W_OLM42	**FileID:**	1-DL-J8013.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dibromochloromethane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	11/14/14 11:41
Chlorobenzene	207		10.0	2.00	µg/L	20	11/14/14 11:41
Ethylbenzene	75.2		10.0	2.00	µg/L	20	11/14/14 11:41
Xylenes (total)	55.4		20.0	6.00	µg/L	20	11/14/14 11:41
Styrene	ND		10.0	2.00	µg/L	20	11/14/14 11:41
Bromoform	ND		20.0	6.60	µg/L	20	11/14/14 11:41
Isopropylbenzene	3.00	J	10.0	2.00	µg/L	20	11/14/14 11:41
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	11/14/14 11:41
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	11/14/14 11:41
1,4-Dichlorobenzene	ND		10.0	3.20	µg/L	20	11/14/14 11:41
1,2-Dichlorobenzene	9.80	J	10.0	2.00	µg/L	20	11/14/14 11:41
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	11/14/14 11:41
1,2,4-Trichlorobenzene	ND		20.0	2.00	µg/L	20	11/14/14 11:41
Surr: 1,2-Dichloroethane-d4	90		75-130	3.20	%REC	20	11/14/14 11:41
Surr: Toluene-d8	100		75-125	2.00	%REC	20	11/14/14 11:41
Surr: 4-Bromofluorobenzene	91		75-125	2.00	%REC	20	11/14/14 11:41

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698343 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-009A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-4 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 13:10
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/17/14 10:18 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7989.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND	UJ	20.0	2.00	µg/L	20	11/13/14 17:01
Chloromethane	ND	UJ	20.0	6.60	µg/L	20	11/13/14 17:01
Vinyl chloride	6.60	J	20.0	6.60	µg/L	20	11/13/14 17:01
Bromomethane	ND	UJ	20.0	6.60	µg/L	20	11/13/14 17:01
Chloroethane	59.4		20.0	6.60	µg/L	20	11/13/14 17:01
Trichlorofluoromethane	ND	UJ	20.0	2.00	µg/L	20	11/13/14 17:01
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	11/13/14 17:01
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
Acetone	ND		200	20.0	µg/L	20	11/13/14 17:01
Carbon disulfide	ND		10.0	2.20	µg/L	20	11/13/14 17:01
Methyl acetate	ND	UJ	100	20.0	µg/L	20	11/13/14 17:01
Methylene chloride	ND		40.0	3.20	µg/L	20	11/13/14 17:01
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	11/13/14 17:01
Methyl tert-butyl ether	ND		20.0	3.20	µg/L	20	11/13/14 17:01
1,1-Dichloroethane	2.80	J	10.0	2.00	µg/L	20	11/13/14 17:01
cis-1,2-Dichloroethene	4.60	J	10.0	2.00	µg/L	20	11/13/14 17:01
2-Butanone	ND		200	20.0	µg/L	20	11/13/14 17:01
Chloroform	ND		10.0	2.00	µg/L	20	11/13/14 17:01
1,1,1-Trichloroethane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
Cyclohexane	5.00	J	10.0	2.00	µg/L	20	11/13/14 17:01
Carbon tetrachloride	ND	UJ	10.0	2.00	µg/L	20	11/13/14 17:01
Benzene	467		10.0	2.00	µg/L	20	11/13/14 17:01
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	11/13/14 17:01
Trichloroethene	ND		10.0	2.00	µg/L	20	11/13/14 17:01
Methylcyclohexane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	11/13/14 17:01
Bromodichloromethane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/13/14 17:01
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	11/13/14 17:01
Toluene	84.0		10.0	2.00	µg/L	20	11/13/14 17:01
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/13/14 17:01
1,1,2-Trichloroethane	ND	UJ	10.0	3.20	µg/L	20	11/13/14 17:01
Tetrachloroethene	ND		10.0	2.00	µg/L	20	11/13/14 17:01
2-Hexanone	ND		100	20.0	µg/L	20	11/13/14 17:01

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698335 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-009A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-4 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 13:10
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/17/14 10:18	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7989.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	11/13/14 17:01
Chlorobenzene	302		10.0	2.00	µg/L	20	11/13/14 17:01
Ethylbenzene	269		10.0	2.00	µg/L	20	11/13/14 17:01
Xylenes (total)	1440		20.0	6.00	µg/L	20	11/13/14 17:01
Styrene	ND		10.0	2.00	µg/L	20	11/13/14 17:01
Bromoform	ND		20.0	6.60	µg/L	20	11/13/14 17:01
Isopropylbenzene	2.40	J	10.0	2.00	µg/L	20	11/13/14 17:01
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	11/13/14 17:01
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	11/13/14 17:01
1,4-Dichlorobenzene	ND		10.0	3.20	µg/L	20	11/13/14 17:01
1,2-Dichlorobenzene	24.2		10.0	2.00	µg/L	20	11/13/14 17:01
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	11/13/14 17:01
1,2,4-Trichlorobenzene	ND	UJ	20.0	2.00	µg/L	20	11/13/14 17:01
Surr: 1,2-Dichloroethane-d4	114		75-130	3.20	%REC	20	11/13/14 17:01
Surr: Toluene-d8	98		75-125	2.00	%REC	20	11/13/14 17:01
Surr: 4-Bromofluorobenzene	98		75-125	2.00	%REC	20	11/13/14 17:01

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698335 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC			Lab ID:	K1411015-009ARA
Project:	PAS Oswego-Semi-Annual Well Sampling			Client Sample ID:	*LCW-4 11/4/14*
W Order:	K1411015			Collection Date:	11/04/14 13:10
Matrix:	WATER			Date Received:	11/04/14 16:00
Inst. ID:	MS03_10	Sample Size	10 mL	PrepDate:	
ColumnID:	Rtx-502.2	%Moisture:		BatchNo:	R27807
Revision:	11/17/14 10:24	TestCode:	8260W_OLM42	FileID:	1-RA-J8012.D
Col Type:					

Report Ditched 12/5/14 (P)

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260C/5030C		
Dichlorodifluoromethane	ND		20.0	2.00	µg/L	20	11/14/14 11:11
Chloromethane	ND		20.0	6.60	µg/L	20	11/14/14 11:11
Vinyl chloride	ND		20.0	6.60	µg/L	20	11/14/14 11:11
Bromomethane	ND		20.0	6.60	µg/L	20	11/14/14 11:11
Chloroethane	55.4		20.0	6.60	µg/L	20	11/14/14 11:11
Trichlorofluoromethane	ND		20.0	2.00	µg/L	20	11/14/14 11:11
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	11/14/14 11:11
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Acetone	ND		200	20.0	µg/L	20	11/14/14 11:11
Carbon disulfide	ND		10.0	2.20	µg/L	20	11/14/14 11:11
Methyl acetate	ND		100	20.0	µg/L	20	11/14/14 11:11
Methylene chloride	ND		40.0	3.20	µg/L	20	11/14/14 11:11
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Methyl tert-butyl ether	ND	UJ	20.0	3.20	µg/L	20	11/14/14 11:11
1,1-Dichloroethane	2.40	J	10.0	2.00	µg/L	20	11/14/14 11:11
cis-1,2-Dichloroethene	3.80	J	10.0	2.00	µg/L	20	11/14/14 11:11
2-Butanone	ND		200	20.0	µg/L	20	11/14/14 11:11
Chloroform	ND		10.0	2.00	µg/L	20	11/14/14 11:11
1,1,1-Trichloroethane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Cyclohexane	4.60	J	10.0	2.00	µg/L	20	11/14/14 11:11
Carbon tetrachloride	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Benzene	458		10.0	2.00	µg/L	20	11/14/14 11:11
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	11/14/14 11:11
Trichloroethene	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Methylcyclohexane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	11/14/14 11:11
Bromodichloromethane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/14/14 11:11
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	11/14/14 11:11
Toluene	84.0		10.0	2.00	µg/L	20	11/14/14 11:11
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/14/14 11:11
1,1,2-Trichloroethane	ND		10.0	3.20	µg/L	20	11/14/14 11:11
Tetrachloroethene	ND		10.0	2.00	µg/L	20	11/14/14 11:11
2-Hexanone	ND		100	20.0	µg/L	20	11/14/14 11:11

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698344 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900
StateCertNo: 10248

Analytical Results

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-009ARA
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-4 11/4/14*
W Order:	K1411015	**Collection Date:**	11/04/14 13:10
Matrix:	WATER	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27807
Revision:	11/17/14 10:24 **TestCode:** 8260W_OLM42	**FileID:**	1-RA-J8012.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	11/14/14 11:11
Chlorobenzene	305		10.0	2.00	µg/L	20	11/14/14 11:11
Ethylbenzene	275		10.0	2.00	µg/L	20	11/14/14 11:11
Xylenes (total)	1470		20.0	6.00	µg/L	20	11/14/14 11:11
Styrene	ND		10.0	2.00	µg/L	20	11/14/14 11:11
Bromoform	ND		20.0	6.60	µg/L	20	11/14/14 11:11
Isopropylbenzene	2.60	J	10.0	2.00	µg/L	20	11/14/14 11:11
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	11/14/14 11:11
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	11/14/14 11:11
1,4-Dichlorobenzene	3.40	J	10.0	3.20	µg/L	20	11/14/14 11:11
1,2-Dichlorobenzene	23.8		10.0	2.00	µg/L	20	11/14/14 11:11
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	11/14/14 11:11
1,2,4-Trichlorobenzene	ND		20.0	2.00	µg/L	20	11/14/14 11:11
Surr: 1,2-Dichloroethane-d4	110		75-130	3.20	%REC	20	11/14/14 11:11
Surr: Toluene-d8	99		75-125	2.00	%REC	20	11/14/14 11:11
Surr: 4-Bromofluorobenzene	99		75-125	2.00	%REC	20	11/14/14 11:11

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/17/14 10:25 698344 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1411015-010A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*QC Trip Blanks 11/4/14*
W Order:	K1411015	**Collection Date:**	11/03/14 11:30
Matrix:	WATER Q	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R27798
Revision:	11/21/14 9:15	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-J7990.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 17:30
Chloromethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 17:30
Vinyl chloride	ND	UJ	1.00	0.33	µg/L	1	11/13/14 17:30
Bromomethane	ND	UJ	1.00	0.33	µg/L	1	11/13/14 17:30
Chloroethane	ND		1.00	0.33	µg/L	1	11/13/14 17:30
Trichlorofluoromethane	ND	UJ	1.00	0.10	µg/L	1	11/13/14 17:30
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/13/14 17:30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Acetone	ND		10.0	1.00	µg/L	1	11/13/14 17:30
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/13/14 17:30
Methyl acetate	ND	UJ	5.00	1.00	µg/L	1	11/13/14 17:30
Methylene chloride	ND		2.00	0.16	µg/L	1	11/13/14 17:30
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/13/14 17:30
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
2-Butanone	ND		10.0	1.00	µg/L	1	11/13/14 17:30
Chloroform	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Cyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Carbon tetrachloride	ND	UJ	0.50	0.10	µg/L	1	11/13/14 17:30
Benzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/13/14 17:30
Trichloroethene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/13/14 17:30
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 17:30
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/13/14 17:30
Toluene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/13/14 17:30
1,1,2-Trichloroethane	ND	UJ	0.50	0.16	µg/L	1	11/13/14 17:30
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
2-Hexanone	ND		5.00	1.00	µg/L	1	11/13/14 17:30

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/21/14 9:17 698336 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1411015-010A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***QC Trip Blanks 11/4/14***
W Order:	K1411015	**Collection Date:**	11/03/14 11:30
Matrix:	WATER Q	**Date Received:**	11/04/14 16:00
Inst. ID:	MS03_10 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R27798
Revision:	11/21/14 9:15 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-J7990.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,2-Dibromoethane	ND		0.50	0.18	µg/L	1	11/13/14 17:30
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/13/14 17:30
Styrene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
Bromoform	ND		1.00	0.33	µg/L	1	11/13/14 17:30
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/13/14 17:30
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/13/14 17:30
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/13/14 17:30
1,2,4-Trichlorobenzene	ND	UJ	1.00	0.10	µg/L	1	11/13/14 17:30
Surr: 1,2-Dichloroethane-d4	124		75-130	0.16	%REC	1	11/13/14 17:30
Surr: Toluene-d8	100		75-125	0.10	%REC	1	11/13/14 17:30
Surr: 4-Bromofluorobenzene	103		75-125	0.10	%REC	1	11/13/14 17:30

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 11/21/14 9:17 698336 **Project Supervisor:** Anthony Crescenzi

ATTACHMENT B-5

INSTITUTIONAL CONTROLS CERTIFICATION MEMORANDUM

PAS OSWEGO SUPERFUND SITE

Institutional Controls Implementation Plan
Annual Certification
November 5, 2014

REQUIREMENT: The Institutional Control Implementation Plan (ICIP) for the PAS Oswego Superfund Site (Site) as approved by USEPA includes requirements for the period following the execution and recording of the Easement, which were documented in the approved Remedial Action Completion Report. It states that following implementation of institutional controls on the Industrial Precision Products Property, the Site will be inspected on an annual basis to determine whether any intrusive activities have occurred. In addition, building and property records will be reviewed to ascertain whether or not any filings have been made for such activities. The ICIP provides for an annual report summarizing the findings of the inspection and record review to be prepared, along with a certification confirming that operation and maintenance activities continue, and that this annual report would be included with the OM&M progress report to be submitted to EPA in July of each year.

CERTIFICATION: The PAS Oswego annual Site and records inspection was performed by de *maximis, inc.* on November 5, 2014. During this visit an inspection was made of the PAS Oswego Site during a monthly operation leachate removal event. This Site inspection was scheduled to allow a visit with a representative of Industrial Precision Products to determine if any intrusive activities may have occurred on their property since the Remedial Action Completion Report was approved in August 2006. *de maximis* also contacted representatives of the City and County to confirm that no potential filings were made to install wells on the Industrial Precision Property. Based on results of the Site and records inspection, a determination has been made that no intrusive activities have occurred or are planned on the Industrial Precision Control Property and that the operation and maintenance activities at the PAS Oswego Site are continuing in accordance with the requirements of Consent Decree.

II-C

1st QUARTER REPORT 2015

QUARTERLY PROGRESS REPORT – 1st QUARTER 2015
Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: January – March 2015 (1st Quarter)

ACTIONS TAKEN DURING QUARTER:

- Leachate removal and site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, New York by O'Brien & Gere Operations LLC, (O'Brien & Gere) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 30,020 gallons of leachate were removed from the Site during the period of January, February and March 2015. Specific quantities of leachate removed included 10,015 gallons in January, 10,005 gallons in February and 10,000 gallons in March. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of January and February 2015 leachate was pumped from the PAS Site to the City of Oswego, New York sanitary sewer system, and was treated at the Oswego, New York Eastside Wastewater Treatment Facility located at 71 Mercer St. in Oswego, New York. During the month of March leachate was pumped into trucks. The leachate was shipped for disposal and treatment to the City of Auburn Publicly Owned Treatment Works Plant (POTW) located at 35 Bradley Street, Auburn, New York.

- Quarterly groundwater elevation monitoring was performed on February 4, 2015. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment C-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system, and general Site conditions. (Attachment C-2) Monthly Site maintenance activities included the following:

    - Removed accumulated snowfall away from the site access gates, paved driveway and the wooden leachate pump shed.

    - Inspected the perimeter security fence of the Site. It was noted the fencing was pulled away from the posts by the weight of the snow from the clearing of the highway. Once

the snow is melted the fencing will be repaired. No additional discrepancies were reported at the time of the inspection.

- The Site single French drainage system and two (2) concrete troughs were inspected. Snow covered most of the area. No discrepancies were reported at the time of the inspection.

- Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. Snow covered most of the area. No damage to the cap was observed.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, and insects, and where properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. No discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel. The heat trace protection system was checked for operation, and remained in the "On" position during each leachate pump out event. The main power distribution panel was observed to have several inches of ice in the lower enclosure. It appeared that the water entered the enclosure through the conduit entering the bottom of the enclosure box. No additional discrepancies were reported at the time of the inspection.

- On January 12, February 4, and March 4, 2015, O'Brien & Gere performed the monthly leachate pre-pumping collection system inspection for leachate collection wells LCW-1, 2, 3 & 4, along with the inspection of the leachate discharge pumping system. In advance of the January and February leachate removal events, O'Brien & Gere informed the City of Oswego Eastside Wastewater Treatment Facility of the scheduled leachate discharge. Prior to each leachate discharge, the City of Oswego was notified. In advance of the March 4, 2015 event, O'Brien & Gere informed the City of Auburn POTW located at 35 Bradley Street, Auburn New York of the anticipated delivery of leachate tankers.

- Upon completing the monthly leachate collection system inspections, O'Brien & Gere manually energized the four leachate collection pumps, identified as LCW-1, LCW-2 LCW-3 and LCW-4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment C-2)

- During the months of January, February and March 2015. O'Brien & Gere pumped a combined volume of 30,020 gallons of leachate from LCW-1, 2, 3 & 4 into the leachate collection tank. In January 10,015 gallons and in February 10,005 gallons were pumped for a total of 20,020 gallons discharged into the City of Oswego off-site sanitary sewer system. The leachate pumping system consists of one electrically powered centrifugal discharge pump, conveyance hose, discharge flow totalizer and leachate sampling port. This

discharge system is located within the confines of the projects wooden utility shed. The amount of leachate discharged during each removal event, along with discharge flow totalizer amounts, pH, pump priming times, and leachate water temperatures were recorded on the Leachate Disposal Checklist for each monthly removal event. In the month of March, 10,000 gallons were pumped into trucks and shipped to the City of Auburn POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. For the March event the leachate pumping system consists of a leachate tank suction hose, gas powered trash pump, inline bag filter system, pressure gauge, leachate sampling port, and discharge hose to leachate tanker. The amount shipped was recorded onto the Leachate Disposal Checklist. (Attachment C-2)

- Upon completing each monthly leachate removal event the leachate discharge equipment was drained of residual leachate, and prepared for storage. The leachate collection tank enclosure and the wooden maintenance shed were secured and locked. When leaving the Site, the metal entrance gate was closed, with a chain and padlock installed.

- The PAS Oswego Site quarterly discharge reports for the 1st quarter of 2015 were submitted. The report to the City of Oswego was submitted on April 3, 2015 in accordance with renewed permit 6-2015-16, and the report to the City of Auburn was submitted on April 3, 2015 in accordance with permit 2014-01. The Treatability Study on PAS discharge to evaluate treatment of Arsenic and Selenium was submitted as an attachment to the April 3, 2015 City of Oswego report. (Attachment A-3)

- O'Brien & Gere performed a leachate filtration test on PAS leachate for Arsenic and Selenium on January 12, 2015. The results were communicated to the City of Oswego in January 2015. The results are provided in the April 3, 2015 quarterly discharge report.

- Based on the results of the Treatability Study and the filtration test for Arsenic and Selenium the City of Oswego discontinued accepting PAS leachate in March 2015 and leachate was shipped to Auburn under the approved Work Plan.

DOCUMENTATION OF REMOVAL ACTIVITIES FOR PREVIOUS QUARTER

- The Groundwater Pre-pumping Well Monitoring Level Form for January 12, 2015 is attached to this report. (Attachment C-1)

- Site Inspection Checklist for January 12, February 4, and March 4, 2015 are attached to this report. (Attachment C-2)

- Leachate Disposal Checklist for January 12, February 4, and March 4, 2015 are attached to this report. (Attachment C-2)

- The PAS Quarterly Discharge reports submitted on April 3, 2015 to the City of Oswego and April 3, 2105 to the City of Auburn are attached. (Attachment C-3)

ATTACHMENT C-1

GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - ~~3/5/2014~~ 2-4-15 Technician - Martin Koennecke Month - Febry ~~March~~ Jew 2015

Well	Riser	Well Range Verification			Monthly Onsite Field Measurements					
Number	Elevation	Average Well Level	Low Well Level	High Well Level	Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	Well Within Range (based on historical well range data) NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	8.82	8.30	9.48	9,74					
SWW2	289.37	15.48	15.02	16.02	16,04					well Ranges NOT
SWW3	286.50	16.83	16.52	17.38	17.40					The Right ONES
SWW4	283.60	14.30	12.94	15.33	15.70					
SWW5	277.02	12.87	12.32	13.46	13,96					
SWW6	273.06	8.37	7.68	8.92	8,68					
SWW7	277.93	7.84	7.28	8.20	8,28					
SWW8	278.24	3.97	3.66	4.31	4,18					
SWW9	285.55	16.86	16.12	17.75	18,72					
SWW10	280.43	10.50	9.54	12.26	12,53					
SWW11	273.50	8.90	8.20	9.60	10,16					
SWW12	272.82	8.53	7.80	9.00	8,98					
LCW-1	272.21	8.18	7.55	8.92	9,90					
LCW-2	274.44	10.43	9.80	11.15	12,14					
LCW-3	284.36	17.67	17.45	18.07	18,34					
LCW-4	285.70	18.22	17.48	19.16	18,62					
OS-1	272.10	0.00	0.00	0.00	10,94					
OI-1	272.00	0.00	0.00	0.00	11.80					
OS-3	277.89	0.00	0.00	0.00	15,38					
OD-3	277.85	0.00	0.00	0.00	15,16					
LD-3	278.62	0.00	0.00	0.00	4,30					
LD-4	279.25	0.00	0.00	0.00	11,40					
LD-5	272.94	0.00	0.00	0.00	9.24					
LS-6	274.14	0.00	0.00	0.00	10,68					
LD-6	274.03	0.00	0.00	0.00	10,82					
LD-8	272.83	0.00	0.00	0.00	9,05					
LR-2	289.85	0.00	0.00	0.00	13,30					
LR-3	278.06	0.00	0.00	0.00	8,00					
LR-6	274.39	0.00	0.00	0.00	10,98					
LR-8	273.42	0.00	0.00	0.00	10.20					
M-21	272.32	0.00	0.00	0.00	9.76					
M-22	273.88	0.00	0.00	0.00	10,94					
M-23	270.49	0.00	0.00	0.00	12,36					

ATTACHMENT C-2

SITE INSPECTION CHECKLIST AND LEACHATE DISPOSAL CHECKLIST

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 1-12-15 Time 10:00

Field Technician MARTIN Koennecke Weather Conditions SNOWING 30°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		SNOW COVERED
French drainage system clear and function able	√		SNOW COVERED
Concrete trough clear and function able	√		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	√		Yes
Discharge Pump inspected & operational	√		Yes
Discharge pump oil level verified prior to use.	√		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	√		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	√		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

1-12-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		PLOWED DRIVE
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gallons Leachate To City of Oswego

Treated Leachate with 50lbs caustic soda Beads an 0.5 lbs Lime, Pumped Thrugh 0.5 mic Bag Filter skid

Took Sample for Fe, As, Se

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 2-4-15 Time 8:30

Field Technician MARTIN Koenecke Weather Conditions SNOWING 25°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		SNOW COVERED
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		SNOW COVERED
Concrete trough clear and function able	✓		SNOW COVERED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		Yes
Discharge Pump inspected & operational	✓		Yes
Discharge pump oil level verified prior to use.	✓		Yes
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		Yes
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

2-4-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		PLOWED DRIVE
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

QUARTERLY WELL LEVELS, PUMPED 10,000 GAL TO CITY OF OSWEGO WATER TREATMENT PLANT, PLOWED DRIVE SITE COVERED 24"-36" SNOW

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 3-4-15 Time 7:15

Field Technician Martin Koennecke Weather Conditions 30°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		SNOW COVERED
Land cap irregularities (note anomaly)	✓		SNOW
French drainage system clear and function able	✓		OK
Concrete trough clear and function able	✓		SNOW COVERED
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	✓		NA.
Discharge Pump inspected & operational	✓		NA
Discharge pump oil level verified prior to use.	✓		NA.
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		NA.
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	✓		NA.
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

3-4-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		Yes
General Site Condition			
Trees & brush cleared off security fence	✓		WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		PLOWED
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		STOCKED
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

PUMPED LEACHATE TO TANK
TREATED PH WITH 50Lbs CAUSTIC SODA BEADS AND 15 lb LIME
TO RAISE PH TO DROP OUT IRON, LOADED TWO TANKER TRUCKS
PUMPING LEACHATE THROUGH BAG FILTERS APP. 10,000 GALLONS
TO CITY OF AUBURN TREATMENT PLANT.

PLOWED SITE DRIVE

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 1-12-15 Time: 10:00

Field Technician MARTIN Koennecke Weather Conditions Snowing 30°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
9.5"	LCW-1	10 15	11:40	43"	120	10,218
	LCW-2	10 15	11:40			
	LCW-3	10 15	10:30			
	LCW-4	10 15	11:40			
					Total	10,218

SAmple for IRON, AS, SE TAKEN AT 12:45

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	11:55	13:50	7.8	44°	750195	760210	10,015
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	87	—	Ø	Ø			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ADDED 50lbs CAUSTIC SODA BEADS AND 9.5 lbs LIME
IRON Before 10+ mg/L 6.8 PH
After TREATMENT 7.8 PH, IRON After 5 MIC, BAG filter — 4.4 mg/L

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 2-4-15 Time: 8 30

Field Technician MARTIN Koennecke Weather Conditions SNOWING 25°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	11 30	12:50	42.5"	124 GPM	9912
	LCW-2	11:30	12:50			
	LCW-3	11:30	11:40			
	LCW-4	11:30	12:50			
					Total	9,912

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	13:15	15:15	6.8	48°	760210	770215	10005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25 min.	0	6"-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 3-4-15 Time: 7:15

Field Technician MK Weather Conditions 30°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
9,5	LCW-1	7:55	9:15	43,5"	11"	10,370
	LCW-2	7:55	9:15			
	LCW-3	7:55	8:05			
	LCW-4	7:55	9:15			
					Total	10,370

Before 6.8 +20 FE / After caustic + Lime 8.5 PH, 4.2

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1			8,5	42°			
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

1ST LOAD 10:30 – 12:00 7500
2ND LOAD 12:15 – 13:15 2500 = app. 10,000 gallons
TO CITY of AUBURN WATER TREATMENT PLANT

ATTACHMENT C-3

QUARTERLY POTW DISCHARGE REPORTS
1ST QUARTER 2015

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

Via electronic mail

April 3, 2015

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: Quarterly Discharge Report – 1st Quarter 2015
Pollution Abatement Services Site – Oswego, New York
City of Auburn Wastewater Discharge Permit 2014-01

Dear Mr. O'Brien:

This quarterly report is submitted in accordance with the City of Auburn Wastewater Discharge Permit 2014-01 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Auburn Wastewater Treatment Facility. This report covers the reporting period from January 2015 through March 2015.

Leachate trucking to the Auburn Public Operated Treatment Plant (POTW) was revived on March 4, 2015. The total gallons of leachate discharged during the first quarter of 2015 were 10,000 gallons. The amount of leachate discharged during each monthly removal event is summarized in Table 1. A Leachate Discharge Form documenting the leachate pumping process and completed Straight Bills of Lading providing the quantity of leachate shipped during each leachate removal event are included in Attachment I. The discharge quantities, as well as date of each discharge event are provided on the Bills of Lading. Measurements for pH and temperature during each removal event are also recorded in the Leachate Discharge Form.

Please send all invoices to the following address:

Attn: Clay McClarnon
de maximis, inc.
450 Montbrook Lane
Knoxville, TN 37919

If you need additional information please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachments

cc: PAS Oswego Site Management Committee

ATTACHMENT I

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF Auburn (2015)
LEACHATE DISCHARGE TO City of Auburn Wastewater Treatment Facility
(Auburn Wastwater Discharge Permit No.2014-01)

Discharge Quarter	1Q 2015		2Q 2015		3Q 2015		4Q 2015	
	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
	3/4/15	10,000						
	42/8.5							
Total Discharged		10,000						
Date Sampled		Not sampled						
Analytes		mg/L						
Antinomy								
Arsenic								
Barium								
Cadmium								
Chromium (hex)								
Chromium (total)								
Copper								
Iron								
Lead								
Mercury								
Nickel								
Selenium								
Silver								
Zinc								
Cyanide								
MeCl								
TCE								
PCE								
111TCE								
Phenolics								
Toluene								

Analyte values in bold exceed limit

Prepared by de maximis, Inc. 4/2/2015

ATTACHMENT I

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 3-4-15 Time: 7:15

Field Technician MK Weather Conditions 30°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
9,5	LCW-1	7:55	9:15	43,5"	11"	10,370
	LCW-2	7:55	9:15			
	LCW-3	7:55	8:05			
	LCW-4	7:55	9:15			
					Total	10,370

Before 6.8 +20 FE / After caustic + lime 8,5 PH, 4,2

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1			8,5	42°			
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

~~1100~~ 1

1ST LOAD 10:30 – 12:00 7500
2ND LOAD 12:15 – 13:15 2500 = app. 10,000 gallons
TO CITY of AUBURN WATER TREATMENT PLANT

STRAIGHT BILL OF LADING
ORIGINAL — NOT NEGOTIABLE

Shipper No. Load # 1

Page 1 of 1

Sun Environmental Corp.
(Name of carrier) (SCAC)

Carrier No. 7A-709

Date 3-4-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code 13126

24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	Est 7500		G	
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper, and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER M. R. Bryan Agent for DeMaximis

3-4-14

CARRIER Sun Environmental Corp.

PER _____

DATE 3-4-15

1

Permanent post-office address of shipper.

STRAIGHT BILL OF LADING
ORIGINAL — NOT NEGOTIABLE

Shipper No. LUNDATT 1

Page 1 of 1

Sun Environmental Corp.
(Name of carrier) (SCAC)

Carrier No. 7A-709

Date 3-4-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee Water Pollution Control Plant
Street 35 Bradley Street
City Auburn State NY Zip Code 13021

FROM: Shipper De Maximis, Inc.
Street 703 East Seneca Street
City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6095

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
- TT		Non-RCRA, Non-DOT Regulated Liquids (LeachateWater)	2500		P	
			5??			
		JOB#OB&G.0067				
		Rec'd [signature]				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ________ per ________."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked
Check box if charges are to be collect ☐

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc
PER [signature] - Agent For Demaximis

CARRIER Sun Environmental Corp.
PER [signature]
DATE 3-4-15

1

Permanent post-office address of shipper.

STYLE F370-4 © 2012 LABELMASTER® (800) 621-5808 www.labelmaster.com

3131-10

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

Via electronic mail

April 3, 2015

Mr. Anthony A. Leotta, P.E.
City Engineer
City Hall
Oswego, New York 13126
tleotta@oswego.ny.org

Re: Quarterly Discharge Report – 1st Quarter 2015
Pollution Abatement Services Site – Oswego, New York
City of Oswego Wastewater Discharge Permit 6-2015-16

Dear Mr. Leotta:

This quarterly report is submitted in accordance with the City of Oswego Wastewater Discharge Permit 6-2015-16 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Oswego's Eastside Wastewater Treatment Facility. This report covers the reporting period from January 2015 through March 2015.

The total gallons of leachate discharged during the first quarter of 2015 were 20,020 gallons. The amount of leachate discharged during each monthly removal event is summarized in Table 1. A completed Leachate Discharge Form documenting the quantity of leachate discharged during each leachate removal event is included in Attachment I. The flow totalizer readings documenting quantities discharged, as well as date and time of each discharge event, is provided on this form. Measurements for pH and temperature during each removal event are also recorded in the Leachate Discharge Form. During the January 2015 removal event, caustic soda was added to raise the pH of the leachate followed by filtration to potentially reduce the Arsenic and Selenium concentrations in the leachate to the City of Oswego pre-treatment limits. The results of the test are provided as Attachment II. Discharge to the City of Oswego was discontinued in March 2015. The discharge pumping system was disconnected and is not operated under the current leachate removal system. Upon notification from the City of Oswego regarding any revision to the pre-treatment standards the system can be reconnected and operated as before.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of the imprisonment for knowing violations.

If you need additional information please call me at (865) 691-5052.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachments

cc: Gary Hallinan – City of Oswego
PAS Oswego Site Management Committee

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (2015)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2010-13)

Discharge Quarter	2Q 2014		3Q 2014		4Q 2014		1Q 2015	
	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
	4/9/14	20,000	7/9/14	20,095	10/8/14	20,000	1/12/15	10,015
	44/6.8		54/6.8		53/6.8		44/7.8	
	5/7/14	20,000	8/6/14	20,000	11/5/14	10,000	2/4/15	10,005
	46/6.8		54/6.8		52/6.8		48/6.8	
	6/4/14	10,000	9/10/14	20,005	12/3/14	10,000		
	50/6.8		54/6.8		48/6.8			
Total Discharged		50,000		60,100		40,000		20,020
Date Sampled*		5/7/2014		8/6/2014		Not sampled		1/12/2015
Analytes**		mg/L		mg/L		mg/L		mg/L
Antinomy		ND <0.00125				ND <0.0016		
Arsenic		**0.0198**		**0.105**		**0.024**		**0.0186**
Beryllium		ND <0.00125				ND <0.0004		
Cadmium		ND <0.0010				ND <0.0006		
Chromium (total)		ND <0.0085				0.0119		
Copper		0.0177				0.0134		
Cyanide		ND <0.0050				ND <0.0044		
Lead		0.00218				0.0025		
Mercury		0.00000314				0.00008		
Nickel		0.339				0.435		
Selenium		**0.0056**		**0.01**		**0.0135**		**ND <0.0067**
Silver		ND <0.00125				ND <0.0016		
Thallium		ND <0.00125				ND <0.00005		
Zinc		ND <0.0150				ND <0.0036		
VOC****		NA				NA		NA
SVOC****		NA				NA		NA
BOD 5		<3.0				43		NA
TSS		65				58		NA
Phenolics		0.103				0.093		NA
pH		6.7				5.86		NA

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.6-2010-13.*

*** Analytes in bold incorporated February 8,2012 and are being evaluated for potential compliance changes by City of Oswego.*

**** lb/day factor 0.16632@20k gal*

***** Analytes included for permit pollutant analysis performed every three years*

Analyte values in bold exceed limit

Prpared by de maximis, inc. 4/2/2015

ATTACHMENT I

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 1-12-15 Time: 10:00

Field Technician MARTIN Koennecke Weather Conditions SNOWING 30°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
9.5"	LCW-1	10 15	11:40	43"	120	10,218
	LCW-2	10 15	11:40			
	LCW-3	10 15	10:30			
	LCW-4	10 15	11:40			
					Total	10,218

SAMPLE FOR IRON, AS, SE TAKEN AT 12:45

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	11:55	13:50	7.8	44°	950195	960210	10,015
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	87	—	Ø	Ø			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ADDED 50lbs CAUSTIC SODA BEADS AND 9.5 lbs LIME
IRON BEFORE 10+ mg/L 6.8 PH
AFTER TREATMENT 7.8 PH, IRON AFTER 15 MIC, BAG FILTER = 4.4 mg/L

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 2-4-15 Time: 830

Field Technician MARTIN Koennecke Weather Conditions SNOWING 25°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
10"	LCW-1	11:30	12:50	42.5"	124 GPM	9912
	LCW-2	11:30	12:50			
	LCW-3	11:30	11:40			
	LCW-4	11:30	12:50			
					Total	9,912

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1	13:15	15:15	6.8	48°	760210	770215	10,005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83	25 min.	0	6"-8"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

ATTACHMENT II

Report Date:
23-Jan-15 12:41

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

O'Brien & Gere Engineers
7600 Morgan Road
Liverpool, NY 13090
Attn: Mark Byrne

Project: PAS Oswego, NY
Project #: 51412

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC02331-01	Leachate	Ground Water	12-Jan-15 12:45	13-Jan-15 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 6 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 0.9 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

Sample Acceptance Check Form

Client:	O'Brien & Gere Engineers - Liverpool, NY
Project:	PAS Oswego, NY / 51412
Work Order:	SC02331
Sample(s) received on:	1/13/2015

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Leachate	51412	Ground Water	12-Jan-15 12:45	13-Jan-15
SC02331-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 200/6000 Series Methods													
	Preservation	**Lab Preserved**		N/A			1	EPA 200/6000 methods	15-Jan-15	15-Jan-15	DA	1500956	
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	**0.0186**		mg/l	0.0040	0.0019	1	SW846 6010C	22-Jan-15	23-Jan-15	edt	1501132	X
7439-89-6	Iron	**6.48**		mg/l	0.0150	0.0122	1	"	"	"	"	"	X
7782-49-2	Selenium	< 0.0067	U	mg/l	0.0150	0.0067	1	"	"	"	"	"	X

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1501132 - SW846 3005A										
Blank (1501132-BLK1)					Prepared: 22-Jan-15 Analyzed: 23-Jan-15					
Iron	< 0.0122	U	mg/l	0.0122						
Selenium	< 0.0067	U	mg/l	0.0067						
Arsenic	< 0.0019	U	mg/l	0.0019						
LCS (1501132-BS1)					Prepared: 22-Jan-15 Analyzed: 23-Jan-15					
Iron	**1.34**		mg/l	0.0122	1.25		108	85-115		
Selenium	**1.28**		mg/l	0.0067	1.25		103	85-115		
Arsenic	**1.26**		mg/l	0.0019	1.25		101	85-115		
LCS Dup (1501132-BSD1)					Prepared: 22-Jan-15 Analyzed: 23-Jan-15					
Iron	**1.31**		mg/l	0.0122	1.25		105	85-115	2	20
Selenium	**1.26**		mg/l	0.0067	1.25		101	85-115	1	20
Arsenic	**1.26**		mg/l	0.0019	1.25		101	85-115	0.2	20

Notes and Definitions

U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Nicole Leja

SC 02331 BY

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: MARK BYRNE
7600 MORGAN RD.
LIVERPOOL NY, 13090

Telephone #: 315-842-7024
Project Mgr: MARK BYRNE

Invoice To: O'BRIEN & GERE OPERATIONS
7600 MORGAN ROAD
LIVERPOOL, NY, 13090

P.O No.: _____ Quote/RQN: _____

Project No: 51412
Site Name: PAS OSWEGO
Location: OSWEGO State: NY
Sampler(s): MARTIN KOENNEKE

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

List Preservative Code below: 4

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis	Check if chlorinated
SC02331-01	LEACHATE	1-12-15	12 45	G	GW				1	Fe, SE, AS	☐
											☐
											☐
											☐
											☐
											☐
											☐
											☐
											☐
											☐

Fe, SE, MK, AS

QA/QC Reporting Notes:
additional charges may apply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other: _____
State-specific reporting standards:

09.10.99 IR

Relinquished by:	Received by:	Date:	Time:
Marty Koenneke		1-13-15	1800
		1/14/15	3:45PM
		1/14/15	2100

Temp °C: Observed 3.2, Correction Factor 0, Corrected 3.2, IR ID# 01

☐ EDD format: _____
☐ E-mail to: MARK.BYRNE@OBG.COM

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

II-D

2ND QUARTER REPORT 2015

QUARTERLY PROGRESS REPORT –2nd QUARTER 2015

Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: April 1st 2015 – June 30th 2015 (2nd Quarter)

ACTIONS TAKEN DURING QUARTER:

- Leachate removal, site maintenance and monitoring activities were conducted at the Pollution Abatement Services (PAS) site (Site), in Oswego, New York by O'Brien & Gere Operations LLC, (O'Brien & Gere) consistent with the PAS Site Operation, Maintenance and Long-term Monitoring Plan (Work Plan).

- A total of 50,625 gallons of leachate were removed from the Site during the period of April, May and June 2015. Specific quantities of leachate removed included 10,125 gallons in April 2015, 20,200 gallons in May and 20,300 gallons in June. Details of the leachate removal for each month, along with historical leachate removal documentation are described in this progress report.

- During the months of April, May and June 2015, leachate was pumped into trucks. The leachate was shipped for disposal and treatment to the City of Auburn Publicly Owned Treatment Works Plant (POTW) located at 35 Bradley Street, Auburn New York.

- Quarterly groundwater elevation monitoring was performed on May 4, 2015. Quarterly groundwater elevation monitoring results for the SWW- series monitoring wells (SWW-1 through SWW-12), leachate collection wells (LCW-1 through LCW-4), M-series wells (M-21 through M-23), LR-series wells (LR-2, 3, 6 and 8), LD-series wells (LD-3, 4, 5, 6, and 8), along with wells OS-1, OS-3, OI-1, OD-3 and LS-6 were recorded on the Pre-Pumping Well Monitoring Level Form. (Attachment D-1)

- Site maintenance activities were conducted monthly in combination with the monthly leachate removal event. The Site Inspection Checklist was used to document the land cap, leachate discharge system, leachate collection system, and general Site conditions. (Attachment D-2) Monthly Site maintenance activities included the following:

    - Inspected the perimeter security fence of the Site. It was noted the fencing was pulled away from the posts by the weight of the snow from the clearing of the highway. Once the snow is melted the fencing will be repaired. No additional discrepancies were reported at the time of the inspection.

    - The Site single French drainage system and two (2) concrete troughs were inspected. Snow covered most of the area. No discrepancies were reported at the time of the inspection.

- Visually inspected the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. No damage to the cap was observed.

- Visually inspected the leachate collection system pumping equipment to verify proper operation. The field technician inspected each pump control panel to ensure control systems were generally free of rodents, and insects, and where properly operating. The leachate holding tank was visually inspected for integrity, as were the leachate tanks steel protective roof, and wood structure. No discrepancies were reported at the time of the inspection.

- The Site wooden utility shed and leachate pumping equipment, including centrifuge discharge pump, flow meter, suction hose, pump oils levels, heat trace power panel, interior lighting, exterior and interior shed structure, and main power distribution panel. The heat trace protection system was checked for operation, and remained in the "On" position during each leachate pump out event. No additional discrepancies were reported at the time of the inspection.

- On April 8, May 6 and June 2 & 17, 2015, O'Brien & Gere performed the monthly leachate pre-pumping system inspection for leachate collection wells LCW-1, 2,3 & 4, along with the inspection of the leachate discharge pumping system. In advance of this event, O'Brien & Gere informed the City of Auburn POTW located at 35 Bradley Street, Auburn, New York of the anticipated delivery of two leachate tankers. Note that on June 2nd Auburn POTW indicated that they were in "bypass" due to heavy rains, and could not take the leachate. The hauling was rescheduled and commenced on June 17th 2015.

- Upon completing the monthly leachate collection well inspection the technician manually energized the LCW-1, LCW-2, LCW-3 and LCW- 4, in order to pump the planned volume of leachate into the leachate collection tank. The run time from each leachate collection pump, along with the leachate tank level taken upon completion of well pumping, was recorded on the Leachate Disposal Checklist. (Attachment D-2)

- During the months of April, May and June 2015, O'Brien & Gere pumped a combined volume of 50,625 gallons of leachate water from the LCW-1, 2, 3 & 4 to the leachate collection tank, were pumped into trucks and shipped to the City of Auburn POTW. The volume and flow rate of each leachate discharge was recorded onto the Leachate Disposal Checklist, as was leachate water pH, and temperature. The leachate pumping system consists of a leachate tank suction hose, gas powered trash pump, inline bag filter system, pressure gauge, leachate sampling port, and discharge hose to leachate tanker. The amount shipped was recorded onto the Leachate Disposal Checklist. (Attachment D-2)

- Upon completing each monthly leachate removal event the leachate discharge equipment was drained of residual leachate, and prepared for storage. The leachate collection tank enclosure and the wooden maintenance shed were secured and locked. When leaving the Site, the metal entrance gate was closed, with a chain and padlock installed.

- On June 17, 2015, the quarterly discharge sample required under the City of Auburn POTW permit was taken and hand delivered to Life Science Laboratories in East Syracuse New York for analysis.

- The PAS Oswego Site quarterly discharge report for the 2nd quarter of 2015 for the City of Auburn was submitted on June 1, 2015 in accordance with permit 2014-01. The City of Auburn quarters do not follow annual quarters. Therefore the quarterly report for Auburn includes March, April and May of 2015. The City of Auburn provided analysis of a leachate discharge sample meeting the quarterly sample permit criteria. These results are included with the quarterly report. (Attachment D-3)

DOCUMENTATION OF REMOVAL ACTIVITIES FOR PREVIOUS QUARTER

- The Groundwater Pre-pumping Well Monitoring Level Form for May 6, 2015 is attached to this report. (Attachment D-1)

- Site Inspection Checklist for April 8, May 6, and June 17, 2015 are attached to this report. (Attachment D-2)

- Leachate Disposal Checklist for April 12, May 4, and June 4, 2015 are attached to this report. (Attachment D-2)

- The PAS Quarterly Discharge report was submitted to the City of Auburn on June 1, 2015 is attached to this report. (Attachment D-3)

- Semi-annual well sampling for LR-6, LR-8 and M-21, M-22, and OD-3, and leachate collection wells LCW-2 and LCW-4 is attached. (Attachment D-4)

ATTACHMENT D-1

GROUNDWATER ELEVATION DATA

O'Brien & Gere Operation (O'Brien & Gere)
PAS Oswego Site
Oswego, New York
Pre-Pumping Well Monitoring Levels

Date - 5-4-15 Technician - Martin Koenneke Month - May

Well Number	Riser Elevation	Well Range Verification: Average Well Level	Well Range Verification: Low Well Level	Well Range Verification: High Well Level	Monthly Onsite Field Measurements: Well Level (1st) Check	Well Level (2nd) Check	Well Within Range (based on historical well range data) YES	Well Within Range NO	Well Level Check (3rd) (if "NO" & well is not within targeted range)	NOTES
SWW1	289.33	9.25	8.22	10.00	9.20		Y			
SWW2	289.37	15.05	14.48	15.42	15.40		Y			
SWW3	286.50	16.61	16.24	17.00	16.92		Y			
SWW4	283.60	14.70	12.62	15.94	15.20		Y			
SWW5	277.02	12.67	11.74	13.28	13.46	13.46		N	13.46	
SWW6	273.06	8.60	7.58	9.21	8.85		Y			
SWW7	277.93	7.55	7.16	7.90	7.76		Y			
SWW8	278.24	4.05	3.40	4.54	4.08		Y			
SWW9	285.55	16.39	15.68	17.02	17.16	17.16		N	17.16	
SWW10	280.43	11.19	8.50	12.62	11.72		Y			
SWW11	273.50	8.55	7.50	9.17	9.50	9.50		N	9.50	
SWW12	272.82	8.65	7.58	9.23	8.76		Y			
LCW-1	272.21	7.89	7.04	8.62	9.12	9.12		N	9.12	
LCW-2	274.44	10.15	9.27	10.90	11.36	11.36		N	11.36	
LCW-3	284.36	17.66	17.24	18.05	17.91		Y			
LCW-4	285.70	17.64	16.82	18.56	18.06		Y			
OS-1	272.10	8.80	6.40	11.40	10.14		Y			
OI-1	272.00	11.18	10.14	12.28	11.58		Y			
OS-3	277.89	14.06	11.70	15.30	14.84		Y			
OD-3	277.85	13.90	11.58	15.12	14.68		Y			
LD-3	278.62	4.24	3.78	4.64	4.44		Y			
LD-4	279.25	10.63	8.68	11.79	11.20		Y			
LD-5	272.94	8.71	7.84	9.42	9.02		Y			
LS-6	274.14	9.50	7.95	10.74	10.19		Y			
LD-6	274.03	9.94	9.32	10.65	10.34		Y			
LD-8	272.83	7.26	6.08	8.30	7.98		Y			
LR-2	289.85	13.21	12.96	13.42	13.38		Y			
LR-3	278.06	7.78	7.10	8.36	8.02		Y			
LR-6	274.39	10.11	9.44	10.66	10.60		Y			
LR-8	273.42	9.78	9.04	10.35	10.26		Y			
M-21	272.32	9.44	8.75	10.00	10.02	10.02		N	10.02	
M-22	273.88	10.13	9.38	10.64	10.56		Y			
M-23	270.49	12.05	11.02	12.88	12.52		Y			

ATTACHMENT D-2

SITE INSPECTION CHECKLIST AND LEACHATE DISPOSAL CHECKLIST

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 4-8-15 Time 6:50

Field Technician MARTIN Koennecke Weather Conditions 38° RAW SHOWERS

Check **V** (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		OK
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	—		
Discharge Pump inspected & operational	—		
Discharge pump oil level verified prior to use.	—		
Discharge pump drained of residual water (drained upon completion of monthly discharge)	—		
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	—		
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

4-8-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		OK
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Pumped 10,000 gal Leachate To Holding Tank, Adjusted PH w Caustic Soda Beads To Drop out Iron. Loaded Two Trucks From Sun Environmental, Shipped To City of Auburn WTP.

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 5-6-15 Time 6:45

Field Technician MARTIN Koennecke Weather Conditions SUNNY

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		NONE VISABLE
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		OK
Concrete trough clear and function able	√		Yes
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	—		NA
Discharge Pump inspected & operational	—		NA Bump Pump over
Discharge pump oil level verified prior to use.	√		OK
Discharge pump drained of residual water (drained upon completion of monthly discharge)	—		
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	—		Off
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	—		NA
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		OK
Leachate holding tank metal roof inspected for structural integrity	√		OK

5-6-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		OK
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		Yes
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		OK
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

Quarterly well Levels, Semi Annual well Sampling Event 5-4-15 & 5-5-15, Pump & Treat 20,000 gal Leachate SHIPPED To City of Auburn POTW BY SUN Environmental

O'BRIEN & GERE

Site Inspection Checklist (V2)

Former Pollution Abatement Services (PAS Oswego)
Oswego, New York

Date 6-17-15 Time 6:30

Field Technician MARTIN KOENNECKE Weather Conditions SUNNY 58°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	✓		NONE VISABLE
Land cap irregularities (note anomaly)	✓		OK
French drainage system clear and function able	✓		OK SITE WILL BE MOWED END OF JUNE
Concrete trough clear and function able	✓		OK
Leachate Discharge System			
City of Oswego sanitary discharge valve positioned "Open"	—		NA
Discharge Pump inspected & operational	✓		BUMPED PUMP OVER
Discharge pump oil level verified prior to use.	✓		OK
Discharge pump drained of residual water (drained upon completion of monthly discharge)	✓		NA
Heat trace system operational & verified in the "ON" position (Applicable Oct - May)	✓		OFF
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	—		NA
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	✓		OK
Leachate holding tank metal roof inspected for structural integrity	✓		OK

6-17-15

Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		Yes
MW's marked & identifiable	✓		OK
General Site Condition			
Trees & brush cleared off security fence	✓		OK WORK IN PROGRESS
Perimeter security fence intact & free of damage	✓		OK
Site access driveway inspected & free on snow & damage	✓		OK
Security access gates / Padlock & chain serviceable	✓		Yes
Site gate signage intact	✓		Yes
Interior & exterior of utility storage shed inspected for damage & secure with locks	✓		OK
Fire extinguisher serviceable, inspected, and inspection recorded	✓		Yes
Spill control material inspected & adequate	✓		Yes
PPE available and utilized as required	✓		Yes
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

ON 6-2-15 PUMPED LEACHATE TO HOLDING TANK AND ADJUSTED PH
ON 6-17-15 LOADED TWO LOADS 3500 AND 5,000 GALLONS THEN PUMPED
APP. 8,000 GALLONS TO LEACHATE TANK ADJUSTED PH FOR THIRD LOAD OF APP. 3800 gal.
TOOK QUARTERLY LEACHATE SAMPLES FOR AUBURN POTW PERMIT

O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN Koennecke Time on-site: 6:50

Transportation Subcontractor: SUN ENVIRONMENTAL

Leachate Destination: CITY of AUBURN

Date: 4-8-15

Field Technician: MARTIN Koennecke

Well	Leachate Collection Well Pumping		Well Pumping Flow Rate Analyses		Flow Rate Calculation	Remarks
	Start Time	Stop Time	Time	Tank Elev. (~~Perm~~)		
LCW-1	7:00	8:15	75 MIN	44"	1346PM	10,065
LCW-2	7:00	8:15	75 MIN			
LCW-~~3~~	7:00	7:10	10 MIN			
LCW-4	7:00	8:15	75 MIN			
Leachate Holding Tank: START - 11"						
~~Initial Flow Meter~~ Reading: END Pumping - 44" / After Pump OUT - 11"						
Final ~~Flow Meter~~ Reading: 33" x 305 Gallons = 10,065 ÷ 75 MIN. = 134 GPM						

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	
Load #1	9:30	Yes	10:10	61.5"	0004	EST 2650
Load #2	1025	Yes	11:40	50.5"	0003	EST 7475
Load #3						
Load #4					TOTAL =	EST. 10,125

PRE TREAT - PH - 7.0 POST TREATMENT ~~PH~~ 8.8

IRON - +20 mg/L IRON - 2.2 mg/L

Temp - 42° F.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 6003

Carrier No. TA-709

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Date 4-2-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-213-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-FT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water) SOC	7,075		G	
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____." (2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172. (3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER _____

CARRIER Sun Environmental Corp.

PER _____

DATE 4-2

4

Permanent post-office address of shipper.

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 6004

Carrier No. 7A-709

Date 04-08-15

Page 1 of 1

Sun Environmental Corp.
(Name of carrier) (SCAC)

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee: Water Pollution Control Plant
Street: 35 Bradley Street
City: Auburn State: NY Zip Code: 13021

FROM:
Shipper: DeMaximis, Inc
Street: 703 East Seneca Street
City: Oswego State: NY Zip Code
24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	2650		G	
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ______ per ______."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

______ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc
PER [signature]

CARRIER Sun Environmental Corp.
PER [signature]
DATE 04-08-15

4

Permanent post-office address of shipper.

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O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN KOENNECKE Time on-site: 6:45

Transportation Subcontractor: SUN ENVIRONMENTAL

Leachate Destination: CITY of AUBURN WWTP

Date: 5-6-15

Field Technician: MARTIN KOENNECKE

Well	Leachate Collection Well Pumping				Well Pumping Flow Rate Analyses		Flow Rate Calculation	Remarks
	Start Time 5-5-15	5-6-15	Stop Time 5-5-15	5-6-15	Time	Tank Elev. (Down)		
LCW-1	12:10	9:05	13:40	10:20			(128 GPM	- 5-5-15)
LCW-2	12:10	9:05	13:40	10:20			(122 GPM	- 5-6-15)
LCW-2	12:10	—	12:20	—				
LCW-4	12:10	9:05	13:40	10.20				

Leachate Holding Tank:	5-5-15 10,5" – 48,5"	5-6-15 6,5" – 38,5" / END -11,5"
Initial Flow Meter Reading:	38" = 11,590	30" = 9,150
Final Flow Meter Reading:		20,200 - SHIPPED

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	
Load #1	7:00	Yes	8:00	51.5"	#1	~~est~~ 8,000
Load #2	8:25	Yes	9:05	56.5"	#2	4,600
Load #3	11:30	Yes	1240	51,"	#3	7,600
Load #4						

FE - 1.6 PH - 7.8

FE - 2.0 PH - 8.2

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Shipper No. 1

Carrier No. 7A-709

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Date 5-6-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	55 8,000		G	
		51.5"				
		JOB# OB&G-0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____." (2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172. (3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc

PER _____

CARRIER Sun Environmental Corp.

PER _____

DATE 5-6-15

4

Permanent post-office address of shipper.

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. Load # 2

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Carrier No. TA-709

Date 5/6/15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO: Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number 316/704

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	4600		G	
		56.5"				
		JOB# OB&G-0097				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER _____

CARRIER Sun Environmental Corp.

PER _____

DATE 5/6/15

4

Permanent post-office address of shipper.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 3

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Carrier No. 7A-709

Date 5-6-5

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	~7,600		G	
		51"				
		JOB# OB&G-0007				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____." (2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172. (3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES

FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER _____

CARRIER Sun Environmental Corp.

PER _____

DATE 5-6-5

4

Permanent post-office address of shipper.

O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN KOENNECKE Time on-site: 9:30

Transportation Subcontractor: —

Leachate Destination: —

Date: 6-2-15

Field Technician: MARTIN KOENNECKE

Well	Leachate Collection Well Pumping		Well Pumping Flow Rate Analyses		Flow Rate Calculation	Remarks
	Start Time	Stop Time	Time	Tank Elev. (Down)		
LCW-1	9:50	11:20		48"	125	
LCW-2	9:50	11:20				
LCW-~~3~~	9:50	10:00				
LCW-4	9:50	11:20				
Leachate Holding Tank: START 11" END 48"						
Initial ~~Flow Meter~~ Reading: PH- 6.8, FE- +20 mgL, 52° F						
Final ~~Flow Meter~~ Reading: ADDED CAUSTIC SODA 40 lbs + .5 Lime PH -8.6, FE-0.4, ~~54~~ 54° F						

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	
Load #1						
Load #2						
Load #3						
Load #4						

O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN KOENNECKE Time on-site: 6:30

Transportation Subcontractor: SUN ENVIRONMENTAL CORP

Leachate Destination: POTW AURBURN NY

Date: 6-17-15

Field Technician: MARTIN KOENNECKE

Well	Leachate Collection Well Pumping		Well Pumping Flow Rate Analyses		Flow Rate Calculation EST	Remarks
	Start Time	Stop Time	Time	Tank Elev. (Down)		
LCW-1	9:25	10:25		33,5"	137	
LCW-2	9:25	10:25				
LCW-~~3~~	9:25	9:35				
LCW-4	9:25	10:25				
Leachate Holding Tank: START 6,5" END 33,5"						
Initial ~~Flow Meter~~ Reading: PH. 6.8 , FE-+20 mlg , Temp - 52°						
Final ~~Flow Meter~~ Reading: ADDED 25 lbs CAUSTIC PH- 7.8 , FE 3.0 mlg , Temp 54°						

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	EST
Load #1	7:30	Yes	8 30	49,5"	# 1	7500 gal
Load #2	8:40	Yes	9:20	60,25"	# 2	5,000 gal
Load #3	11:50	Yes	13:05	50"	# 3	7,800 gal
Load #4						

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 1

Page 1 of 1

San Environmental Corp. (Name of carrier) (SCAC)

Carrier No. TA-700

Date 6-17-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315 218 6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	7,600		G	
		JOB# OB&G.0057				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER Mark Kennedy

CARRIER San Environmental Corp.

PER

DATE 6-17-15

4

Permanent post-office address of shipper.

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 2

Carrier No. 7A-789

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Date 6-17-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee: Water Pollution Control Plant
Street: 35 Bradley Street
City: Auburn State: NY Zip Code: 13021

FROM:
Shipper: DeMaximis, Inc
Street: 703 East Seneca Street
City: Oswego State: NY Zip Code
24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water) 60.25	5,000 est		G	
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ________ per ________."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
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________ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked
Check box if charges are to be collect ☐

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.
PER [signature]

CARRIER Sun Environmental Corp.
PER [signature]
DATE 6/17/15

4

Permanent post-office address of shipper.

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This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 3

Carrier No. 7A-709

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Date 6-17-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee: Water Pollution Control Plant
Street: 35 Bradley Street
City: Auburn State: NY Zip Code: 13021

FROM: Shipper: DeMaximis, Inc
Street: 703 East Seneca Street
City: Oswego State: NY Zip Code:
24 hr. Emergency Contact Tel. No.: 315-218-6995

Route:

Vehicle Number:

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	7800		G	
		JOB# CB&C-0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☒ $

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TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.
PER _____

CARRIER Sun Environmental Corp.
PER _____
DATE 6-17-15

4

Permanent post-office address of shipper.

ATTACHMENT D-3

QUARTERLY POTW DISCHARGE REPORTS
2ND QUARTER 2015

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
(865) 691-6485 FAX
(865) 691-9835 ACCT. FAX

June 1, 2015

Mr. Tim O'Brien
Department of Municipal Utilities
35 Bradley Street
Auburn, New York 13021

Re: 2nd Quarter PAS Oswego Discharge Report 2015

Dear Mr. O'Brien,

This quarterly report is submitted in accordance with the City of Auburn Wastewater Discharge Permit 2014-01 (Permit) for discharge of leachate from the Pollution Abatement Services (PAS) Site into the City of Auburn Wastewater Treatment Facility. This report covers the reporting period from March 2015 through May 2015.

Leachate trucking to the Auburn Public Operated Treatment Plant (POTW) was revived on March 4, 2015. The total number of gallons of leachate discharged during each month of the quarter is summarized in Table 1. The Leachate Discharge Form documenting the leachate pumping process and completed bills of lading providing the quantities shipped during each discharge event are included in Attachment I. The discharge quantities, as well as date of each discharge event are provided on the bills of lading. Measurements for pH and temperature during the removal event are also recorded on the discharge forms.

The quarterly compliance sampling for the permit was performed by the City of Auburn during the March discharge event. Those results indicated all parameters were below the permitted criteria.

Please contact me at (865) 691-5052, if you have any questions.

Sincerely,
de maximis, inc.

Clay McClarnon

Attachment

CMC/akw

cc: PAS Management Committee

f:\projects\3131 - pas\permits-potw 10\2015\rpts & docs\auburn 2nd qtr 2015 rpt.doc

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF Auburn (2015)
LEACHATE DISCHARGE TO City of Auburn WASTEWATER TREATMENT FACILITY
(Auburn Wastwater Discharge Permit No.2014-01)

Discharge Quarter	2Q 2015		3Q 2015		4Q 2015		1Q 2016	
	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
	3/4/15	10,000						
	42/8.5							
	4/8/15	10,125						
	42/7.5							
	5/6/15	20,200						
	52/8.0							
Total Discharged		40,325						
Date Sampled*		3/4/2015 **						
Analytes		mg/L						
Antinomy								
Arsenic		**0.018**						
Barium		0.25						
Cadmium								
Chromium (Hex)								
Chromium (total)		0.13						
Copper								
Iron		4.3						
Lead		ND						
Mercury		0.0002						
Nickel		0.44						
Phosporus		ND <0.2						
Selenium								
Silver								
Zinc		0.17						
Cyanide		ND < 0.01						
MeCl		ND <2						
TCE		ND <1						
PCE		NA						
1,2 DCE		ND <1						
Phenolics		0.22						
Toluene		ND <1						
TKN		25						
TSS		120						
BOD_5		14						

** Semi-annual sampling of PAS leachate discharge conducted in accordance with SIU Wastewater Discharge Permit No.2014-01.*

*** Sampled by City of Auburn 3/4/15*

Analyte values in bold exceed limit

Prpared by de maximis, inc. 5/29/2015

ATTACHMENT 1

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 3-4-15 Time: 7:45

Field Technician MK Weather Conditions 30°

Beginning Leachate Hold Tank Elevation (Inches)	Pre-Discharge Well Pumping					
	Pumping Well #	Pump Start Time	Pump Stop Time	Ending Tank Elevation	Flow Rate (est.)	Est. Leachate Pumped into Holding Tank (Gallons)
9,5	LCW-1	7:55	9:15	43,5"	11"	10,370
	LCW-2	7:55	9:15			
	LCW-3	7:55	8:05			
	LCW-4	7:55	9:15			
					Total	10,370

Before 6.8 +20 FE / After caustic + Lime 8.5 PH, 4.2

Discharge #	Monthly Leachate Discharge Pumping (To the City of Oswego)						
	Start Time	Stop Time	pH	Temp	Totalizer Flow Total (Start)	Totalizer Flow Total (End)	Gallons Discharge
Discharge #1			8,5	42°			
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1						

~~1000~~ 1

1ST LOAD 10:30 – 12:00 7500
2ND LOAD 12:15 – 13:15 2500 = app. 10,000 gallons
TO CITY of AUBURN WATER TREATMENT PLANT

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. ____

Carrier No. 7A-709

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Date 3-4-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.

TO:
Consignee Water Pollution Control Plant
Street 35 Bradley Street
City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc
Street 703 East Seneca Street
City Oswego State NY Zip Code 13126
24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	Est 7500		G	
			47.5" Stick			
		JOB# OH&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.
PER Mark Bryan Agent For DeMaximis
3-4-14

CARRIER Sun Environmental Corp.
PER _____
DATE 3-4-15

4

Permanent post-office address of shipper.

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This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. [illegible]

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Carrier No. TA-709

Date 3-4-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee Water Pollution Control Plant
Street 35 Bradley Street
City Auburn State NY Zip Code 13021

FROM: Shipper De Maximis, Inc.
Street 703 East Seneca Street
City Oswego State NY Zip Code
24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
- TT		Non-RCRA, Non-DOT Regulated Liquids (LeachateWater)	7570		P	
			5			
		JOB#OBAC.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
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_____ Signature

REMIT C.O.D. TO:
ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc
PER [signature]

CARRIER Sun Environmental Corp.
PER [signature]
DATE 3-4-15

4

Permanent post-office address of shipper.

O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN Koennecke

Time on-site: 6:50

Transportation Subcontractor: SUN ENVIRONMENTAL

Leachate Destination: CITY of AUBURN

Date: 4-8-15

Field Technician: MARTIN Koennecke

Well	Leachate Collection Well Pumping		Well Pumping Flow Rate Analyses		Flow Rate Calculation	Remarks
	Start Time	Stop Time	Time	Tank Elev. (~~Depth~~)		
LCW-1	7:00	8:15	75 MIN	44"	134 GPM	10,065
LCW-2	7:00	8:15	75 MIN			
LCW-3	7:00	7:10	10 MIN			
LCW-4	7:00	8:15	75 MIN			
Leachate Holding Tank: START - 11"						
~~Initial Flow Meter~~ Reading: END Pumping - 44" / After Pump OUT - 11"						
Final ~~Flow Meter~~ Reading: 33" x 305 Gallons = 10,065 ÷ 75 MIN. = 134 GPM						

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	
Load #1	9:30	Yes	10:10	61.5"	0004	EST 2650
Load #2	1025	Yes	11:40	50.5"	0003	EST 7475
Load #3						
Load #4					TOTAL =	EST. 10,125

PRE TREAT - PH - 7.0 POST TREATMENT PH-8.8

IRON - +20 mg/L IRON - 2.02 mg/L

Temp - 42° F.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 6003

Carrier No. TA-709

Page 1 of 1

San Environmental Corp. (Name of carrier) (SCAC)

Date 4-2-5

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 703 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-FT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	7,075		G	
		JOB# OB&G.0007				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(c) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER _____

CARRIER San Environmental Corp.

PER _____

DATE 4-2-5

4

Permanent post-office address of shipper.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 6004

Page 1 of 1

San Environmental Corp. (Name of carrier) (SCAC)

Carrier No. TA-789

Date 04-08-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee Water Pollution Control Plant
Street 35 Bradley Street
City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc
Street 703 East Seneca Street
City Oswego State NY Zip Code
24 hr. Emergency Contact Tel. No. 315-218-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	2650		G	
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO:
ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc
PER for DeMaximis Inc

CARRIER San Environmental Corp.
PER
DATE 04-08-15

4

Permanent post-office address of shipper.

O'BRIEN & GERE

PAS Site
Oswego, New York

Leachate Disposal Checklist

Project Personnel: MARTIN KOENNECKE Time on-site: 6:45

Transportation Subcontractor: SUN ENVIRONMENTAL

Leachate Destination: CITY of AUBURN WWTP

Date: 5-6-15

Field Technician: MARTIN KOENNECKE

Well	Leachate Collection Well Pumping				Well Pumping Flow Rate Analyses		Flow Rate Calculation	Remarks
	Start Time 5-5-15	5-6-15	Stop Time 5-5-15	5-6-15	Time	Tank Elev. (Down)		
LCW-1	12:10	9:05	13:40	10:20			(128 GPM	- 5-5 15)
LCW-2	12:10	9:05	13:40	10:20			(122 GPM	- 5-6-15)
LCW-2	12:10	—	12:20	—				
LCW-4	12:10	9:05	13:40	10.20				
Leachate Holding Tank: 5-5-15 10.5" – 48.5"					5-6-15 6.5" – 36.5" / END – 11.5"			
Initial Flow Meter Reading: 38" = 11,590					30" - 9,150			
Final Flow Meter Reading:					20,200 - SHIPPED			

Load	(Pre-Loading) Tanker		(Post-Loading) Tanker		Destination	Remarks
	Time Start	Confirmed Clean	Time End	Tanker Volume (by Strick Mass)	Manifest	
Load #1	7:00	Yes	8:00	51.5"	#1	est 8,000
Load #2	8:25	Yes	9:05	56.5"	#2	4,600
Load #3	11:30	Yes	1240	51,"	#3	7,600
Load #4						

FE - 1.6 PH - 7.8 Temp 52°

FE - 2.0 PH - 8.2

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. [illegible]

Carrier No. 7A-709

Page 1 of 1

Sun Environmental Corp.
(Name of carrier) (SCAC)

Date 5-6-5

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee: Water Pollution Control Plant
Street: 35 Bradley Street
City: Auburn State: NY Zip Code: 13021

FROM:
Shipper: DeMaximis, Inc
Street: 703 East Seneca Street
City: Oswego State: NY Zip Code:

24 hr. Emergency Contact Tel. No. 315-718-6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	5,500 / 3,000		G	
		51.5"				
		JOB# OB&G.0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ________ per ________."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

________ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked
Check box if charges are to be collect ☐

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Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER: DeMaximis Inc
PER: [signature]

CARRIER: Sun Environmental Corp.
PER: [signature]
DATE: 5-6-14

4

Permanent post-office address of shipper.

STYLE F370-4 © 2012 LABELMASTER® (800) 621-5808 www.labelmaster.com

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate; covering the property named herein, and is intended solely for filing or record.

Shipper No. Loco 5 2

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Carrier No. 7A-709

Date 5/6/15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO: Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 709 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315-218-6995

Route

Vehicle Number 316/704

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	4600	[illegible]	G	
		54.5"				
		JOB# CB&C-0067				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ____ per ____."
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Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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SHIPPER DeMaximis Inc.

PER [signature]

CARRIER Sun Environmental Corp.

PER [signature]

DATE 5/6/15

4

Permanent post-office address of shipper.

This Memorandum

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Shipper No. 3

Page 1 of 1

Sun Environmental Corp. (Name of carrier) (SCAC)

Carrier No. 7A-709

Date 5-6-5

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee Water Pollution Control Plant

Street 35 Bradley Street

City Auburn State NY Zip Code 13021

FROM: Shipper DeMaximis, Inc

Street 783 East Seneca Street

City Oswego State NY Zip Code

24 hr. Emergency Contact Tel. No. 315 218 6005

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1-TT		Non-RCRA, Non-DOT Regulated Liquids (Leachate Water)	7,000		G	
		51"				
		JOB# OB&G.0057				

PLACARDS TENDERED: YES ☐ NO ☐

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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER DeMaximis Inc.

PER _____

CARRIER Sun Environmental Corp.

PER _____

DATE 5-6-5

4

Permanent post-office address of shipper.

LSL Life Science Laboratories, Inc.

Tim O'Brien
Auburn, City of
Department of Municipal Utilities
35 Bradley Street
Auburn, NY 13021

Phone: (315) 253-6511
FAX: (315) 255-4148

Laboratory Analysis Report

Prepared For

Auburn, City of

Client Project ID:

PAS Leachate

LSL Project ID: **1502919**

Receive Date/Time: 03/05/15 17:43

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1900
Fax (315) 445-1104
NYS DOH ELAP #10248
PA DEP #68-2556

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Office
Cuba, NY
Tel. (585) 209-4032

LSL MidLakes Office
Canandaigua, NY
Tel. (585) 728-3320

Reviewed by: _____ *Date:* 3/18/15

David J. Prichard, Director of Tech. Services

A copy of this report was sent to:

Date Printed: 3/16/15

- - LABORATORY ANALYSIS REPORT - -

Auburn, City of *Auburn, NY*

Sample ID: Truck Grab **LSL Sample ID:** 1502919-001

Location:

Sampled: 03/04/15 13:50 **Sampled By:** AK

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 365.1,Rev. 2.0 Total Phosphorus						
Phosphorus, Total as P	<0.2	mg/l		3/9/15	3/10/15	JJC
As per NELAC regulation, disclosure of the following condition is required; The result of a continuing calibration check sample was greater than the established limit.						
(1) EPA 1664A Oil & Grease(HEM) by LLE						
Oil & Grease	19	mg/l			3/13/15	CRT
(1) EPA 200.7 Metals			EPA 200.2			CT
Please refer to the next page						
(1) EPA 245.1 Metals			EPA 245.1			CT
Please refer to the next page						
(1) EPA 335.4 Total Cyanide						
Cyanide, Total	<0.01	mg/l		3/13/15	3/13/15	JJC
(1) EPA 351.2,Rev.2.0 TKN as N						
Total Kjeldahl Nitrogen	25	mg/l		3/11/15	3/11/15	JJC
(1) EPA 420.1 Recoverable Phenolics ML						
Phenolics, Total Recoverable	0.22	mg/l		3/10/15	3/11/15	TER
As per NELAC regulation disclosure of the following condition is required; The result of the laboratory control sample was greater than the established limit. The result of a matrix spike sample associated with this analysis was greater than the established control limit.						
(1) EPA 601/602 Volatiles by 624			EPA 624			
1,2-Dichloroethene, Total	140	ug/l			3/6/15	MSV
Methylene chloride	<2	ug/l			3/6/15	MSV
Toluene	29	ug/l			3/6/15	MSV
Trichloroethene	4.8	ug/l			3/6/15	MSV
Surrogate (1,2-DCA-d4)	93	%R			3/6/15	MSV
Surrogate (Tol-d8)	89	%R			3/6/15	MSV
Surrogate (4-BFB)	96	%R			3/6/15	MSV
(1) EPA 8082A PCBs			EPA 3510C			
Aroclor-1016	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1221	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1232	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1242	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1248	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1254	<0.05	ug/l		3/7/15	3/9/15	CRT
Aroclor-1260	<0.05	ug/l		3/7/15	3/9/15	CRT
Surrogate (DCB)	72	%R		3/7/15	3/9/15	CRT
(1) SM 2540 D-97,-11 Total Suspended Solids						
Total Suspended Solids @ 103-105 C	120	mg/l			3/10/15	MP/MM
(1) SM 5210B-01,-11 BOD-5 Day						
Biochemical Oxygen Demand, 5 Day	14	mg/l			3/6/15 10:17	MP
As per NELAC regulation disclosure of the following condition is required; The result of the laboratory control sample was less than the established limit.						

Analysis performed at: *(1) LSL Central Lab, (2) LSL North Lab, (3) LSL Finger Lakes Lab*

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057

Chain of Custody Record

K1503076 **1502919**

Phone # (315) 445-1900 Telefax # (315) 445-1104

Client: City of Auburn Phone # (315) 253-6511

Address: 24 South St. Telefax #

Auburn, N.Y. 13021

Authorization:

Contact Person: Tim O'Brien

LSL Project #: AuburnCityWWTP 3099

Client's Site I.D.: ~~Grab/Composite~~ PAS Leachate

Client's Project I.D.:

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type: grab	Type: comp.	Matrix	Preserv. Added	Containers: #	Containers: size/type	Analyses	Preserv. Check
001 A	Truck	3/4/15	1:50pm	X		NPW	None	1	500 mL	BOD, TSS, ~~Nitrate~~	
B				X			H_2SO_4	1	250 mL	T.Phos, TKN	<2
C				X			HNO_3	1	250 mL	As,Ba,Cr,Cu,Fe,Pb,Hg,Ni,Zn	<2
D				X			H_2SO_4	1	Liter(g)	Oil & Grease	
E				X			H_2SO_4	1	Liter(g)	Phenols	<2
F				X			Asc./NaOH	1	250 ml	Cn	>12
G H				X			HCL	2	40 mL	*601/602* (by 624)	
I		↓	↓	X			None	1	Liter(g)	PCB (8082) (No Cap on Bottle)	
										1:55pm pH = 8.25 @ 4.9°C	
002 AB							HCL	2	40 mL	Trip Blank	

Notes and Hazard identifications:

Trichloroethylene, 1,2 dichloroethylene, Methylene Chloride, Toluene

Custody Transfers		Date	Time
Sampled By: Cindra Klestas	Received By:	3/4/15	1:
Relinquished By: Cindra Klestas	Received By:	3.5.15	10:00
Relinquished By:	Received for Lab By: R. Dunbar	3.5.15	17:43

Shipment Method: Samples Received Intact: Y N 3°C on ice

ddms

DATA VALIDATION

FOR

WATER MONITORING
PAS Oswego
OSWEGO, NEW YORK

ORGANIC ANALYSIS DATA
Volatiles in Water
Laboratory Job No.
K1505039

Analyses Performed

By:

Life Sciences Laboratory
East Syracuse, NY

For:

de maximis, inc.
Knoxville, TN 37919

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

June 5, 2015

1547-3131/psn
PAS\K1505039Voa

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Life Sciences Laboratories, Inc. for eight water samples, one equipment blank, and one trip blank supporting the PAS Oswego Semi Annual Well Sampling event has been completed by de maximis Data Management Solutions, Inc. (ddms). The data were reported by the laboratory under Laboratory Job No. K1505039. The following samples were reported:

Equipment Blank	M-21	LR-8	OD-3	X-1
LR-6	M-22	LCW-2	LCW-4	Trip Blank

Based on the validation effort, the following qualifiers were applied:

- Results for methylene chloride in the equipment blank, trip blank, LR-8, LCW-2, and LCW-4 and for acetone in M-21, LR-8, LR-6, and M-22 were qualified as not detected (U) at the analyte-specific reporting limit.
- Results for methylcyclohexane were qualified estimated (J+) in M-21, LR-8, X-1, and LCW-4 and may be biased high.
- Results for 1,4-dichlorobenzene in M-21, X-1, and LCW-4 were qualified as not detected (U) at the reporting limit.

All other results were determined to be valid as reported. Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatiles data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW-846 Method 8260C. This method does not stipulate a reporting format, however, the laboratory provided a "CLP-type" data package for review. Results of sample analyses were reported by the laboratory without qualifications.

Since no validation guidelines specific to the analytical method employed are available, ddms' validation was performed, to the extent possible, in conformance with EPA's "Validating Volatile Organic Compounds by Gas Chromatograpy/Mass Spectrometry, SW-846 Method 8260B & 8260C, SOP NO. HW-24, Revision 4" as well as ddms' "Standard Operating Procedure: Validation and Review of Volatile Organic Data; ECS-SOP-003". Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the Region II Guidelines:

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) Criteria. The analyte may or may not be present in the sample.

These codes are recorded on the Data Summary Forms contained in Attachment A and the Organic Analysis Report Sheets in Attachment B of this validation report to indicate qualifications placed on the results based on the data review.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

A copy of the applicable chain of custody (COC) record was included in the data package, documenting a sample collection date of May 4, 2015. The samples were hand delivered to the laboratory on May 5, 2015. The temperature of the cooler on receipt at the laboratory was outside the acceptance criteria (1.0° C; criteria 4.0° C ± 2.0° C). However, since the samples were not frozen, no data were qualified on this basis. Acceptable preservation of samples (pH <2) was noted on the injection log and was also included in the narrative. The samples were analyzed on May 13, 2015, within the 14-day holding time for preserved samples.

II. GC/MS Instrument Performance Check

A summary form was provided for two bromofluorobenzene (BFB) instrument performance check run on instrument "MSN76", representing the periods during which the samples and associated standards were analyzed. The performance checks were fully documented and acceptable.

III. Calibration

Manual integrations were indicated on the IC quantitation reports for many analyte responses, however no supporting documentation was provided to verify that the integrations were appropriately performed. The validation was completed under the assumption that all manual integrations were appropriately performed.

A. Initial Calibration (IC)

One IC was performed in support of these sample analyses. Documentation of all of ten of the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All reported %RSD values were below the maximum acceptance limit of 20 percent. All average RRF values were acceptable.

B. Continuing Calibration (CC)

One CC was performed on May 13, 2015. All RRF values were acceptable and percent difference values were acceptable with the exception of 4-methyl-2-pentanone (20.4%D; criteria < 20%D) and 1,2-dibromo-3-chloropropane (20.2%D). Since these

were slight excursions and because these analytes were not reported in any of the samples, no data were qualified on this basis.

IV. Blanks

One laboratory method blank was analyzed in support of these samples. One trip blank and one equipment blank were submitted in support of these samples. Methylene chloride was detected in the method blank (0.57 µg/L), the trip blank (0.24 µg/L), and the equipment blank (0.28 µg/L). Acetone was detected in the equipment blank (1.44 µg/L). Results less than five times the amount detected in any blank are qualified as not detected at the reporting limit or reported value, whichever is greater. Results for methylene chloride in the equipment blank, trip blank, LR-8, LCW-2, and LCW-4 and for acetone in M-21, LR-8, LR-6, and M-22 were qualified as not detected (U) at the analyte-specific reporting limit due to associated blank contamination.

V. Surrogate Compound Recovery

Recoveries of all of the surrogate compounds were correctly calculated, accurately reported, and within acceptance limits.

VI. Spike Analysis

A. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses were performed on LR-8. All percent recoveries were acceptable with the exception of methylcyclohexane in the MS and MSD (129%R; criteria 75-125%). Results for methylcyclohexane were qualified estimated (J+) in M-21, LR-8, X-1, and LCW-4 and may be biased high.

B. Blank Spike

Two blank spikes were reported with these samples. All percent recoveries were acceptable with the exception of methylcyclohexane (128%R; criteria 80-120%). Results for methylcyclohexane were qualified estimated (J+) in M-21, LR-8, X-1, and LCW-4 and may be biased high.

VII. Field Duplicate

Sample M-21 was collected as a blind field duplicate of Sample X-1. Following qualification based on associated blank contamination, RPDs between paired results were acceptable.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

Target analytes were detected in nine of these samples and an acceptable mass spectrum was provided for most compounds detected. Analyte-specific reporting limits are equal to at least the lowest standard in the calibration range, in most cases higher than the lowest standard, and are well supported by the IC. Results for 1,4-dichlorobenzene in M-21, X-1, and LCW-4 were qualified as not detected (U) at the reporting limit due to unacceptable ion ratios.

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for all samples and spike samples.

The Data Summary Forms in Attachment A list all individual sample analytes. Where no result is listed, the compound was not detected and the RL was not qualified. Sample-specific RLs may be calculated from the information on the data summary form by multiplying the quantitation limit (far left column) by the dilution factor.

XI. Tentatively Identified Compounds (TIC)

Tentative identification of non-target compounds was not a requirement of this analytical program.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

The chain-of-custody record was present and accurately completed for the samples reported in this data package.

The following documentation issues were observed during the validation of these data:

- The narrative indicated that the samples were analyzed in accordance with SW-846 Method 8260C. The Sample Control Record cited the analytical method as 8260B.

- The sample identifications on the COC did not include the sample date. The laboratory appended the sample dates to the field identifications to facilitate database requirements. The sample identifications provided on the COC have been used throughout this report.

While these documentation issues do not affect the usability of the data, they could be problematic if the data were used in litigation.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- Results for methylene chloride in the equipment blank, trip blank, LR-8, LCW-2, and LCW-4 and for acetone in M-21, LR-8, LR-6, and M-22 were qualified as not detected (U) at the analyte-specific reporting limit due to associated blank contamination.

- Results for methylcyclohexane were qualified estimated (J+) in M-21, LR-8, X-1, and LCW-4 and may be biased high due to MS/MSD and blank spike recoveries.

- Results for 1,4-dichlorobenzene in M-21, X-1, and LCW-4 were qualified as not detected (U) at the reporting limit due to unacceptable ion ratios.

All other results are valid as reported.

Documentation issues observed in the data package are described in Section XIII.

This validation report should be considered part of the data package for all future distributions of the volatiles data.

ddms

ATTACHMENT A

DATA SUMMARY FORMS
Laboratory Job No. K1505039
Volatiles in Water

DATA SUMMARY FORM: VOLATILES 1
WATER SAMPLES
(ug/L)

Site Name: PAS Oswego Semi Annual Well Sampling

Sampling Date: May 4, 2015

Laboratory Job No. K1505039

ddms Project No. 1547-3131

	Sample Location	Equipment Blank		M-21		LR-8		OD-3		X-1		LR-6		M-22	
	Lab Sample ID	K1505039-001A		K1505039-002A		K1505039-003A		K1505039-004A		K1505039-005A		K1505039-006A		K1505039-007A	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
RL															
1.00	Dichlorodifluoromethane														
1.00	Chloromethane														
1.00	Vinyl Chloride														
1.00	Bromomethane														
1.00	Chloroethane			2.01		4.71				2.04					
1.00	Trichlorodluoromethane														
0.50	1,1-Dichloroethene														
0.50	1,1,2-Trichloro-1,2,2-trifluoroethane														
10.0	Acetone	1.44	J	10.0	U	10.0	U					10.0	U	10.0	U
0.50	Carbon disulfide														
5.00	Methyl acetate														
2.00	Methylene Chloride	2.00	U			2.00	U								
0.50	trans-1,2-Dichloroethene														
1.00	Methyl tert-butyl ether														
0.50	1,1-Dichloroethane											0.68		0.12	J
0.50	cis-1,2-Dichloroethene														
10.0	2-Butanone														
0.50	Chloroform														
0.50	1,1,1-Trichloroethane														
0.50	Cyclohexane			1.77		3.07				1.75					
0.50	Carbon Tetrachloride														
0.50	Benzene			0.19	J	1.51				0.18	J				
0.50	1,2-Dichloroethane														
0.50	Trichloroethene											0.13	J		
0.50	Methylcyclohexane			0.25	J+	0.37	J+			0.26	J+				
0.50	1,2-Dichloropropane														
0.50	Bromodichloromethane														
0.50	cis-1,3-Dichloropropene														

DATA SUMMARY FORM: VOLATILES 2
WATER SAMPLES
(ug/L)

Site Name: PAS Oswego Semi Annual Well Sampling

Sampling Date: May 4, 2015

Laboratory Job No. K1505039

ddms Project No. 1547-3131

Sample Location		Equipment Blank		M-21		LR-8		OD-3		X-1		LR-6		M-22	
Lab Sample ID		K1505039-001A		K1505039-002A		K1505039-003A		K1505039-004A		K1505039-005A		K1505039-006A		K1505039-007A	
Dilution Factor		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
RL															
5.00	4-Methyl-2-pentanone														
0.50	Toluene			0.25	J	0.32	J			0.23	J				
0.50	trans-1,3-Dichloropropene														
0.50	1,1,2-Trichloroethane														
0.50	Tetrachloroethene														
5.00	2-Hexanone														
0.50	Dibromochloromethane														
0.50	1,2-Dibromomethane														
0.50	Chlorobenzene			5.64		13.2				5.55					
0.50	Ethylbenzene														
1.00	Xylenes (total)					0.41	J								
0.50	Styrene														
1.00	Bromoform														
0.50	Isopropylbenzene			0.83		1.19				0.81					
0.50	1,1,2,2-Tetrachloroethane														
0.50	1,3-Dichlorobenzene					0.14	J								
0.50	1,4-Dichlorobenzene			0.50	U	0.80				0.50	U				
0.50	1,2-Dichlorobenzene			0.57		0.49	J			0.57					
5.00	1,2-Dibromo-3-chloropropane														
1.00	1,2,4-Trichlorobenzene														

DATA SUMMARY FORM: VOLATILES 1
WATER SAMPLES
(ug/L)

Site Name: PAS Oswego Semi Annual Well Sampling

Sampling Date: May 4, 2015

Laboratory Job No. K1505039

ddms Project No. 1547-3131

RL	Sample Location	LCW-2		LCW-4		Trip Blank											
	Lab Sample ID	K1505039-008A		K1505039-009A		K1505039-010											
	Dilution Factor	20		20		1.0											
1.00	Dichlorodifluoromethane																
1.00	Chloromethane																
1.00	Vinyl Chloride	36.8		21.2													
1.00	Bromomethane																
1.00	Chloroethane	18.2	J	73.6													
1.00	Trichlorodluoromethane																
0.50	1,1-Dichloroethene																
0.50	1,1,2-Trichloro-1,2,2-trifluoroethane																
10.0	Acetone																
0.50	Carbon disulfide																
5.00	Methyl acetate																
2.00	Methylene Chloride	40.0	U	40.0	U												
0.50	trans-1,2-Dichloroethene																
1.00	Methyl tert-butyl ether																
0.50	1,1-Dichloroethane	13.4		8.00	J												
0.50	cis-1,2-Dichloroethene	14.8		26.0													
10.0	2-Butanone																
0.50	Chloroform																
0.50	1,1,1-Trichloroethane	6.00	J														
0.50	Cyclohexane			6.00	J												
0.50	Carbon Tetrachloride																
0.50	Benzene	378		414													
0.50	1,2-Dichloroethane																
0.50	Trichloroethene	4.60	J														
0.50	Methylcyclohexane			3.00	J+												
0.50	1,2-Dichloropropane																
0.50	Bromodichloromethane																
0.50	cis-1,3-Dichloropropene																

DATA SUMMARY FORM: VOLATILES 2
WATER SAMPLES
(ug/L)

Site Name: PAS Oswego Semi Annual Well Sampling

Sampling Date: May 4, 2015

Laboratory Job No. K1505039

ddms Project No. 1547-3131

	Sample Location	LCW-2		LCW-4		Trip Blank									
	Lab Sample ID	K1505039-008A		K1505039-009A		K1505039-010									
	Dilution Factor	1.0		1.0		1.0									
RL															
5.00	4-Methyl-2-pentanone														
0.50	Toluene			22.8											
0.50	trans-1,3-Dichloropropene														
0.50	1,1,2-Trichloroethane														
0.50	Tetrachloroethene	6.80	J												
5.00	2-Hexanone														
0.50	Dibromochloromethane														
0.50	1,2-Dibromomethane														
0.50	Chlorobenzene	84.8		294											
0.50	Ethylbenzene	21.0		151											
1.00	Xylenes (total)	10.6	J	757											
0.50	Styrene														
1.00	Bromoform														
0.50	Isopropylbenzene	6.00	J	5.00	J										
0.50	1,1,2,2-Tetrachloroethane														
0.50	1,3-Dichlorobenzene														
0.5	1,4-Dichlorobenzene			10.0	U										
0.50	1,2-Dichlorobenzene	7.20	J	30.6											
5.00	1,2-Dibromo-3-chloropropane														
1.00	1,2,4-Trichlorobenzene														

ddms

ATTACHMENT B

ORGANIC ANALYSIS REPORT SHEETS
Laboratory Job No. K1505039
Volatiles in Water

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-001A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*Equipment Blank 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 10:45
Matrix:	WATER Q	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2706.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 17:59
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 17:59
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 17:59
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 17:59
Chloroethane	ND		1.00	0.33	µg/L	1	05/13/15 17:59
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 17:59
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 17:59
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Acetone	1.44	J	10.0	1.00	µg/L	1	05/13/15 17:59
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 17:59
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 17:59
Methylene chloride	2.00H ~~0.28~~	J	2.00	0.16	µg/L	1	05/13/15 17:59
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 17:59
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 17:59
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Cyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Benzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 17:59
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Methylcyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 17:59
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 17:59
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 17:59
Toluene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 17:59
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 17:59
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 17:59
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59

Paddy S. Newbold 6/5/2015

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-001A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*Equipment Blank 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 10:45
Matrix:	WATER Q	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2706.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 17:59
Chlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 17:59
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 17:59
Isopropylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	05/13/15 17:59
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 17:59
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 17:59
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 17:59
Surr: 1,2-Dichloroethane-d4	95		75-130	0.16	%REC	1	05/13/15 17:59
Surr: Toluene-d8	103		75-125	0.10	%REC	1	05/13/15 17:59
Surr: 4-Bromofluorobenzene	104		75-125	0.10	%REC	1	05/13/15 17:59

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712473 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-002A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 12:05
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2707.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 18:34
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 18:34
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 18:34
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 18:34
Chloroethane	2.01		1.00	0.33	µg/L	1	05/13/15 18:34
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 18:34
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 18:34
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Acetone	10.4 ~~3.93 J~~		10.0	1.00	µg/L	1	05/13/15 18:34
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 18:34
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 18:34
Methylene chloride	ND		2.00	0.16	µg/L	1	05/13/15 18:34
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 18:34
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 18:34
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 18:34
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Cyclohexane	1.77		0.50	0.10	µg/L	1	05/13/15 18:34
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Benzene	0.19	J	0.50	0.10	µg/L	1	05/13/15 18:34
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 18:34
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Methylcyclohexane	0.25	J+	0.50	0.10	µg/L	1	05/13/15 18:34
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 18:34
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 18:34
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 18:34
Toluene	0.25	J	0.50	0.10	µg/L	1	05/13/15 18:34
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 18:34
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 18:34
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 18:34
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34

Reviewed by S. Perrotti 6/5/2015

Qualifiers:

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E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-002A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 12:05
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2707.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 18:34
Chlorobenzene	5.64		0.50	0.10	µg/L	1	05/13/15 18:34
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 18:34
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 18:34
Isopropylbenzene	0.83		0.50	0.10	µg/L	1	05/13/15 18:34
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 18:34
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 18:34
1,4-Dichlorobenzene	0.504 ~~0.33~~		0.50	0.16	µg/L	1	05/13/15 18:34
1,2-Dichlorobenzene	0.57		0.50	0.10	µg/L	1	05/13/15 18:34
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 18:34
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 18:34
Surr: 1,2-Dichloroethane-d4	95		75-130	0.16	%REC	1	05/13/15 18:34
Surr: Toluene-d8	101		75-125	0.10	%REC	1	05/13/15 18:34
Surr: 4-Bromofluorobenzene	102		75-125	0.10	%REC	1	05/13/15 18:34

Polly S. Newbold 6/5/2015

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712474 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc. — Analytical Results

LSL
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC			**Lab ID:**	K1505039-003A
Project:	PAS Oswego-Semi-Annual Well Sampling			**Client Sample ID:**	*LR-8 5/4/15*
W Order:	K1505039			**Collection Date:**	05/04/15 13:30
Matrix:	WATER			**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R28389
Revision:	05/19/15 15:54	**TestCode:**	8260W_OLM42	**FileID:**	1-SAMP-n2703.D
Col Type:					

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 16:14
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 16:14
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 16:14
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 16:14
Chloroethane	4.71		1.00	0.33	µg/L	1	05/13/15 16:14
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 16:14
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 16:14
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Acetone	10.0 U ~~4.39~~	~~J~~	10.0	1.00	µg/L	1	05/13/15 16:14
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 16:14
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 16:14
Methylene chloride	2.00U ~~0.16~~	~~J~~	2.00	0.16	µg/L	1	05/13/15 16:14
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 16:14
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 16:14
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 16:14
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Cyclohexane	3.07		0.50	0.10	µg/L	1	05/13/15 16:14
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Benzene	1.51		0.50	0.10	µg/L	1	05/13/15 16:14
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 16:14
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Methylcyclohexane	0.37	J J+	0.50	0.10	µg/L	1	05/13/15 16:14
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 16:14
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 16:14
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 16:14
Toluene	0.32	J	0.50	0.10	µg/L	1	05/13/15 16:14
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 16:14
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 16:14
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 16:14
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14

Polly S. Newbold 6/5/2015

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712470 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-003A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-8 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 13:30
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2703.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 16:14
Chlorobenzene	13.2		0.50	0.10	µg/L	1	05/13/15 16:14
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Xylenes (total)	0.41	J	1.00	0.30	µg/L	1	05/13/15 16:14
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 16:14
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 16:14
Isopropylbenzene	1.19		0.50	0.10	µg/L	1	05/13/15 16:14
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 16:14
1,3-Dichlorobenzene	0.14	J	0.50	0.10	µg/L	1	05/13/15 16:14
1,4-Dichlorobenzene	0.80		0.50	0.16	µg/L	1	05/13/15 16:14
1,2-Dichlorobenzene	0.49	J	0.50	0.10	µg/L	1	05/13/15 16:14
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 16:14
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 16:14
Surr: 1,2-Dichloroethane-d4	92		75-130	0.16	%REC	1	05/13/15 16:14
Surr: Toluene-d8	102		75-125	0.10	%REC	1	05/13/15 16:14
Surr: 4-Bromofluorobenzene	105		75-125	0.10	%REC	1	05/13/15 16:14

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712470 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-004A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*OD-3 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 14:45
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2708.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 19:08
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 19:08
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 19:08
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 19:08
Chloroethane	ND		1.00	0.33	µg/L	1	05/13/15 19:08
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 19:08
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 19:08
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Acetone	ND		10.0	1.00	µg/L	1	05/13/15 19:08
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 19:08
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 19:08
Methylene chloride	ND		2.00	0.16	µg/L	1	05/13/15 19:08
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 19:08
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 19:08
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Cyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Benzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 19:08
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Methylcyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 19:08
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 19:08
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 19:08
Toluene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 19:08
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 19:08
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 19:08
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712475 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1505039-004A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***OD-3 5/4/15***
W Order:	K1505039	**Collection Date:**	05/04/15 14:45
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2708.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 19:08
Chlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 19:08
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 19:08
Isopropylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	05/13/15 19:08
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:08
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 19:08
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 19:08
Surr: 1,2-Dichloroethane-d4	95		75-130	0.16	%REC	1	05/13/15 19:08
Surr: Toluene-d8	102		75-125	0.10	%REC	1	05/13/15 19:08
Surr: 4-Bromofluorobenzene	102		75-125	0.10	%REC	1	05/13/15 19:08

Qualifiers:				
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712475 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1505039-005A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***X-1 5/4/15***
W Order:	K1505039	**Collection Date:**	05/04/15 0:00
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2709.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 19:43
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 19:43
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 19:43
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 19:43
Chloroethane	2.04		1.00	0.33	µg/L	1	05/13/15 19:43
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 19:43
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 19:43
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Acetone	ND		10.0	1.00	µg/L	1	05/13/15 19:43
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 19:43
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 19:43
Methylene chloride	ND		2.00	0.16	µg/L	1	05/13/15 19:43
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 19:43
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 19:43
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 19:43
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Cyclohexane	1.75		0.50	0.10	µg/L	1	05/13/15 19:43
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Benzene	0.18	J	0.50	0.10	µg/L	1	05/13/15 19:43
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 19:43
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Methylcyclohexane	0.26	J	0.50	0.10	µg/L	1	05/13/15 19:43
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 19:43
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 19:43
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 19:43
Toluene	0.23	J	0.50	0.10	µg/L	1	05/13/15 19:43
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 19:43
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 19:43
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 19:43
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43

Dolly S. Newbold 6/5/2015

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-005A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*X-1 5/4/15*
W Order:	K1505039	**Collection Date:**	05/04/15 0:00
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2709.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 19:43
Chlorobenzene	5.55		0.50	0.10	µg/L	1	05/13/15 19:43
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 19:43
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 19:43
Isopropylbenzene	0.81		0.50	0.10	µg/L	1	05/13/15 19:43
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 19:43
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 19:43
1,4-Dichlorobenzene	0.504 ~~0.33~~	J	0.50	0.16	µg/L	1	05/13/15 19:43
1,2-Dichlorobenzene	0.57		0.50	0.10	µg/L	1	05/13/15 19:43
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 19:43
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 19:43
Surr: 1,2-Dichloroethane-d4	98		75-130	0.16	%REC	1	05/13/15 19:43
Surr: Toluene-d8	101		75-125	0.10	%REC	1	05/13/15 19:43
Surr: 4-Bromofluorobenzene	101		75-125	0.10	%REC	1	05/13/15 19:43

Polly S. Newfold
6/5/2015

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712476 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.

LSL

5854 Butternut Drive
East Syracuse, NY 13057 **(315) 445-1900**

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC			**Lab ID:**	K1505039-006A
Project:	PAS Oswego-Semi-Annual Well Sampling			**Client Sample ID:**	*LR-6 5/5/15*
W Order:	K1505039			**Collection Date:**	05/05/15 8:25
Matrix:	WATER			**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R28389
Revision:	05/19/15 15:54	**TestCode:**	8260W_OLM42	**FileID:**	1-SAMP-n2710.D
Col Type:					

Analyte	**Result**	**Qual**	**PQL**	**MDL**	**Units**	**DF**	**Date Analyzed**
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 20:19
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 20:19
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 20:19
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 20:19
Chloroethane	ND		1.00	0.33	µg/L	1	05/13/15 20:19
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 20:19
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 20:19
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Acetone	10.0 U ~~1.60~~	~~J~~	10.0	1.00	µg/L	1	05/13/15 20:19
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 20:19
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 20:19
Methylene chloride	ND		2.00	0.16	µg/L	1	05/13/15 20:19
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 20:19
1,1-Dichloroethane	0.68		0.50	0.10	µg/L	1	05/13/15 20:19
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 20:19
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Cyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Benzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 20:19
Trichloroethene	0.13	J	0.50	0.10	µg/L	1	05/13/15 20:19
Methylcyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 20:19
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 20:19
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 20:19
Toluene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 20:19
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 20:19
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 20:19
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 20:19

Polly S. Newbold 6/5/2015

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712477 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1505039-006A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***LR-6 5/5/15***
W Order:	K1505039	**Collection Date:**	05/05/15 8:25
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2710.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 20:19
Chlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 20:19
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 20:19
Isopropylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	05/13/15 20:19
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:19
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 20:19
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 20:19
Surr: 1,2-Dichloroethane-d4	99		75-130	0.16	%REC	1	05/13/15 20:19
Surr: Toluene-d8	101		75-125	0.10	%REC	1	05/13/15 20:19
Surr: 4-Bromofluorobenzene	101		75-125	0.10	%REC	1	05/13/15 20:19

Qualifiers:				
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712477 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-22 5/5/15*
W Order:	K1505039	**Collection Date:**	05/05/15 9:45
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2711.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 20:55
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 20:55
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 20:55
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 20:55
Chloroethane	ND		1.00	0.33	µg/L	1	05/13/15 20:55
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 20:55
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 20:55
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Acetone	~~1.16 J~~ 10.04		10.0	1.00	µg/L	1	05/13/15 20:55
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 20:55
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 20:55
Methylene chloride	ND		2.00	0.16	µg/L	1	05/13/15 20:55
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 20:55
1,1-Dichloroethane	0.12 J		0.50	0.10	µg/L	1	05/13/15 20:55
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 20:55
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Cyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Benzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 20:55
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Methylcyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 20:55
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 20:55
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 20:55
Toluene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 20:55
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 20:55
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 20:55
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 20:55

Dolly S. Newbold 6/15/2015

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712478 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-22 5/5/15*
W Order:	K1505039	**Collection Date:**	05/05/15 9:45
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2711.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 20:55
Chlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 20:55
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 20:55
Isopropylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	05/13/15 20:55
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 20:55
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 20:55
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 20:55
Surr: 1,2-Dichloroethane-d4	99		75-130	0.16	%REC	1	05/13/15 20:55
Surr: Toluene-d8	102		75-125	0.10	%REC	1	05/13/15 20:55
Surr: 4-Bromofluorobenzene	103		75-125	0.10	%REC	1	05/13/15 20:55

Qualifiers:	* Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712478 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-008A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2 5/5/15*
W Order:	K1505039	**Collection Date:**	05/05/15 11:00
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2704.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		20.0	2.00	µg/L	20	05/13/15 16:50
Chloromethane	ND		20.0	6.60	µg/L	20	05/13/15 16:50
Vinyl chloride	36.8		20.0	6.60	µg/L	20	05/13/15 16:50
Bromomethane	ND		20.0	6.60	µg/L	20	05/13/15 16:50
Chloroethane	18.2	J	20.0	6.60	µg/L	20	05/13/15 16:50
Trichlorofluoromethane	ND		20.0	2.00	µg/L	20	05/13/15 16:50
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	05/13/15 16:50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	05/13/15 16:50
Acetone	ND		200	20.0	µg/L	20	05/13/15 16:50
Carbon disulfide	ND		10.0	2.20	µg/L	20	05/13/15 16:50
Methyl acetate	ND		100	20.0	µg/L	20	05/13/15 16:50
Methylene chloride	~~11.6~~ 40.0 U	J	40.0	3.20	µg/L	20	05/13/15 16:50
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	05/13/15 16:50
Methyl tert-butyl ether	ND		20.0	3.20	µg/L	20	05/13/15 16:50
1,1-Dichloroethane	13.4		10.0	2.00	µg/L	20	05/13/15 16:50
cis-1,2-Dichloroethene	14.8		10.0	2.00	µg/L	20	05/13/15 16:50
2-Butanone	ND		200	20.0	µg/L	20	05/13/15 16:50
Chloroform	ND		10.0	2.00	µg/L	20	05/13/15 16:50
1,1,1-Trichloroethane	6.00	J	10.0	2.00	µg/L	20	05/13/15 16:50
Cyclohexane	ND		10.0	2.00	µg/L	20	05/13/15 16:50
Carbon tetrachloride	ND		10.0	2.00	µg/L	20	05/13/15 16:50
Benzene	378		10.0	2.00	µg/L	20	05/13/15 16:50
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	05/13/15 16:50
Trichloroethene	4.60	J	10.0	2.00	µg/L	20	05/13/15 16:50
Methylcyclohexane	ND		10.0	2.00	µg/L	20	05/13/15 16:50
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	05/13/15 16:50
Bromodichloromethane	ND		10.0	2.00	µg/L	20	05/13/15 16:50
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	05/13/15 16:50
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	05/13/15 16:50
Toluene	ND		10.0	2.00	µg/L	20	05/13/15 16:50
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	05/13/15 16:50
1,1,2-Trichloroethane	ND		10.0	3.20	µg/L	20	05/13/15 16:50
Tetrachloroethene	6.80	J	10.0	2.00	µg/L	20	05/13/15 16:50
2-Hexanone	ND		100	20.0	µg/L	20	05/13/15 16:50
Dibromochloromethane	ND		10.0	2.00	µg/L	20	05/13/15 16:50

Polly S. Pearsall 6/5/2015

Qualifiers:	* Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712471 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1505039-008A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***LCW-2 5/5/15***
W Order:	K1505039	**Collection Date:**	05/05/15 11:00
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2704.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	05/13/15 16:50
Chlorobenzene	84.8		10.0	2.00	µg/L	20	05/13/15 16:50
Ethylbenzene	21.0		10.0	2.00	µg/L	20	05/13/15 16:50
Xylenes (total)	10.6	J	20.0	6.00	µg/L	20	05/13/15 16:50
Styrene	ND		10.0	2.00	µg/L	20	05/13/15 16:50
Bromoform	ND		20.0	6.60	µg/L	20	05/13/15 16:50
Isopropylbenzene	6.00	J	10.0	2.00	µg/L	20	05/13/15 16:50
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	05/13/15 16:50
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	05/13/15 16:50
1,4-Dichlorobenzene	ND		10.0	3.20	µg/L	20	05/13/15 16:50
1,2-Dichlorobenzene	7.20	J	10.0	2.00	µg/L	20	05/13/15 16:50
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	05/13/15 16:50
1,2,4-Trichlorobenzene	ND		20.0	2.00	µg/L	20	05/13/15 16:50
Surr: 1,2-Dichloroethane-d4	94		75-130	3.20	%REC	20	05/13/15 16:50
Surr: Toluene-d8	103		75-125	2.00	%REC	20	05/13/15 16:50
Surr: 4-Bromofluorobenzene	103		75-125	2.00	%REC	20	05/13/15 16:50

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712471 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc. — Analytical Results

LSL
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC			**Lab ID:**	K1505039-009A
Project:	PAS Oswego-Semi-Annual Well Sampling			**Client Sample ID:**	*LCW-4 5/5/15*
W Order:	K1505039			**Collection Date:**	05/05/15 12:05
Matrix:	WATER			**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R28389
Revision:	05/19/15 15:54	**TestCode:**	8260W_OLM42	**FileID:**	1-SAMP-n2705.D
Col Type:					

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		20.0	2.00	µg/L	20	05/13/15 17:24
Chloromethane	ND		20.0	6.60	µg/L	20	05/13/15 17:24
Vinyl chloride	21.2		20.0	6.60	µg/L	20	05/13/15 17:24
Bromomethane	ND		20.0	6.60	µg/L	20	05/13/15 17:24
Chloroethane	73.6		20.0	6.60	µg/L	20	05/13/15 17:24
Trichlorofluoromethane	ND		20.0	2.00	µg/L	20	05/13/15 17:24
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	05/13/15 17:24
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Acetone	ND		200	20.0	µg/L	20	05/13/15 17:24
Carbon disulfide	ND		10.0	2.20	µg/L	20	05/13/15 17:24
Methyl acetate	ND		100	20.0	µg/L	20	05/13/15 17:24
Methylene chloride	40.0 U ~~12.2~~	~~J~~	40.0	3.20	µg/L	20	05/13/15 17:24
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Methyl tert-butyl ether	ND		20.0	3.20	µg/L	20	05/13/15 17:24
1,1-Dichloroethane	8.00	J	10.0	2.00	µg/L	20	05/13/15 17:24
cis-1,2-Dichloroethene	26.0		10.0	2.00	µg/L	20	05/13/15 17:24
2-Butanone	ND		200	20.0	µg/L	20	05/13/15 17:24
Chloroform	ND		10.0	2.00	µg/L	20	05/13/15 17:24
1,1,1-Trichloroethane	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Cyclohexane	6.00	J	10.0	2.00	µg/L	20	05/13/15 17:24
Carbon tetrachloride	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Benzene	414		10.0	2.00	µg/L	20	05/13/15 17:24
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	05/13/15 17:24
Trichloroethene	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Methylcyclohexane	3.00	J+	10.0	2.00	µg/L	20	05/13/15 17:24
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	05/13/15 17:24
Bromodichloromethane	ND		10.0	2.00	µg/L	20	05/13/15 17:24
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	05/13/15 17:24
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	05/13/15 17:24
Toluene	22.8		10.0	2.00	µg/L	20	05/13/15 17:24
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	05/13/15 17:24
1,1,2-Trichloroethane	ND		10.0	3.20	µg/L	20	05/13/15 17:24
Tetrachloroethene	ND		10.0	2.00	µg/L	20	05/13/15 17:24
2-Hexanone	ND		100	20.0	µg/L	20	05/13/15 17:24
Dibromochloromethane	ND		10.0	2.00	µg/L	20	05/13/15 17:24

Polly S. Newbold 6/5/2015

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712472 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	**K1505039-009A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***LCW-4 5/5/15***
W Order:	K1505039	**Collection Date:**	05/05/15 12:05
Matrix:	WATER	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R28389
Revision:	05/19/15 15:54 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-n2705.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	05/13/15 17:24
Chlorobenzene	294		10.0	2.00	µg/L	20	05/13/15 17:24
Ethylbenzene	151		10.0	2.00	µg/L	20	05/13/15 17:24
Xylenes (total)	757		20.0	6.00	µg/L	20	05/13/15 17:24
Styrene	ND		10.0	2.00	µg/L	20	05/13/15 17:24
Bromoform	ND		20.0	6.60	µg/L	20	05/13/15 17:24
Isopropylbenzene	5.00	J	10.0	2.00	µg/L	20	05/13/15 17:24
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	05/13/15 17:24
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	05/13/15 17:24
1,4-Dichlorobenzene	~~4.20~~	~~J~~	10.0	3.20	µg/L	20	05/13/15 17:24
1,2-Dichlorobenzene	30.6		10.0	2.00	µg/L	20	05/13/15 17:24
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	05/13/15 17:24
1,2,4-Trichlorobenzene	ND		20.0	2.00	µg/L	20	05/13/15 17:24
Surr: 1,2-Dichloroethane-d4	93		75-130	3.20	%REC	20	05/13/15 17:24
Surr: Toluene-d8	101		75-125	2.00	%REC	20	05/13/15 17:24
Surr: 4-Bromofluorobenzene	102		75-125	2.00	%REC	20	05/13/15 17:24

10.0 U

Polly S. Herwood
6/5/2015

Qualifiers:					
	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712472 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-010A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*QC Trip Blank 5/5/15*
W Order:	K1505039	**Collection Date:**	04/29/15 0:00
Matrix:	WATER Q	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2712.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 21:29
Chloromethane	ND		1.00	0.33	µg/L	1	05/13/15 21:29
Vinyl chloride	ND		1.00	0.33	µg/L	1	05/13/15 21:29
Bromomethane	ND		1.00	0.33	µg/L	1	05/13/15 21:29
Chloroethane	ND		1.00	0.33	µg/L	1	05/13/15 21:29
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	05/13/15 21:29
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	05/13/15 21:29
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Acetone	ND		10.0	1.00	µg/L	1	05/13/15 21:29
Carbon disulfide	ND		0.50	0.11	µg/L	1	05/13/15 21:29
Methyl acetate	ND		5.00	1.00	µg/L	1	05/13/15 21:29
Methylene chloride	0.24	J	2.00	0.16	µg/L	1	05/13/15 21:29
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	05/13/15 21:29
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
2-Butanone	ND		10.0	1.00	µg/L	1	05/13/15 21:29
Chloroform	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Cyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Benzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 21:29
Trichloroethene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Methylcyclohexane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	05/13/15 21:29
Bromodichloromethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 21:29
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	05/13/15 21:29
Toluene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	05/13/15 21:29
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	05/13/15 21:29
Tetrachloroethene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
2-Hexanone	ND		5.00	1.00	µg/L	1	05/13/15 21:29
Dibromochloromethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29

Qualifiers:

*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712479 **Project Supervisor:** Anthony Crescenzi

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Operations, LLC	**Lab ID:**	K1505039-010A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*QC Trip Blank 5/5/15*
W Order:	K1505039	**Collection Date:**	04/29/15 0:00
Matrix:	WATER Q	**Date Received:**	05/05/15 16:15
Inst. ID:	MSN_76	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R28389
Revision:	05/19/15 15:54	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-n2712.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260C/5030C**		
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	05/13/15 21:29
Chlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Ethylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Xylenes (total)	ND		1.00	0.30	µg/L	1	05/13/15 21:29
Styrene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
Bromoform	ND		1.00	0.33	µg/L	1	05/13/15 21:29
Isopropylbenzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	05/13/15 21:29
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	05/13/15 21:29
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	05/13/15 21:29
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	05/13/15 21:29
Surr: 1,2-Dichloroethane-d4	102		75-130	0.16	%REC	1	05/13/15 21:29
Surr: Toluene-d8	101		75-125	0.10	%REC	1	05/13/15 21:29
Surr: 4-Bromofluorobenzene	100		75-125	0.10	%REC	1	05/13/15 21:29

Qualifiers:	* Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 05/19/15 15:56 712479 **Project Supervisor:** Anthony Crescenzi

ATTACHMENT D-4

SEMI-ANNUAL LEACHATE AND GROUNDWATER MONITORING MAY 2015

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1900 Telefax # (315) 445-1104

Chain of Custody Record

Client: OBRIEN & GERE Phone # 315-956-6100
Address: 333 West Washington St. Fax #
Syracuse NY. 13202

Authorization:

Contact Person: MARK BYRNE
MARK.BYRNE@OBG.com
315-842-7024

LSL Project #:

Client's Site I.D.: PAS Oswego Semi Annual well sampling

Client's Project I.D.: 60771

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Free Cl (mg/L)	Pres. Check
	Equipment Blank	5-4-15	10 45	G		W	HCL	3	40 ml	8260		
	M-21	5-4-15	12:05	G		W	HCL	3	40ml	8260		
	LR-8 MS/MSD	5-4-15	13:30	G		W	HCL	9	40 ml	8260		
	OD-3	5-4-15	14:45	G		W	HCL	3	40 ml	8260		
	X-1	5-4-15	—	G		W	HCL	3	40ml	8260		
	LR-6	5-5-15	8:25	G		W	HCL	3	40 ml	8260		
	M-22	5-5-15	9:45	G		W	HCL	3	40mL	8260		
	LCW-2	5-5-15	11:00	G		W	HCL	3	40ml	8260		
	LCW-4	5-5-15	12:05	G		W	HCL	3	40ml	8260		

Notes and Hazard identifications:

Custody Transfers		Date	Time
Sampled By: Martin Koenecke	Received By:		
Relinquished By: Martin Koenecke	Received By:	5-5-15	16:15
Relinquished By:	Received for Lab By: R. Dunbar	5-5-15	16:15

Shipment Method: HAND Samples Received Intact: Y N 1°C on ice

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) | GROUND WATER SAMPLING LOG

Date	5-4-15	Weather	Sunny 75°
Site Name	PAS Oswego	Well #	OD-3
Location	55 East Seneca St	Evacuation Method	Grundfos Low Flow Equip.
Project Number		Sampling Method	EPA Low Flow Method II
Personnel	M. Koennecke		

WELL INFORMATION

Depth of Well	ft 44.70				Water Vol/ft for:
Depth of Water	ft 14.68	2" Diameter Well	= 0.163 X LWC		X
Length of Water Column	ft	4" Diameter Well	= 0.653 X LWC		
Volume of Water in Well	gal	6" Diameter Well	= 1.469 X LWC		
3x Volume of Water in Well	gal	14" Diameter Well	= 2.282 X LWC		

Volume removed before Sampling	gals
Did Well go dry?	

Measurements Taken From: ☒ Well Casing ☐ Protective Casing ☐ Other:

INSTRUMENT CALIBRATION YSI 556 MPS

pH Buffer Readings
4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard

TEST EQUIPMENT DEPTHS WITHIN WELL

Time	Well Screen Depth	Depth of Intake Pump	Blank	BLANK	BLANK	BLANK	BLANK

WATER PARAMETERS 14:05

Time	Depth to Water	Temperature	pH	Conductivity mS/cm	ORP	DO mg/L (%)	Turbidity (NTU)	Flow Rate
5 min	14.50	9.90	7.92	0.189	61.5	5.42	2.00	300 ml
10 min	14.70	9.95	7.82	0.187	64.9	5.35	1.40	300 ml
15 min	14.75	9.90	7.73	0.187	67.4	5.54	1.21	300 ml
20 min	14.76	9.85	7.64	0.187	70.8	5.67	0.81	300 ml
25 min	14.75	9.89	7.61	0.187	71.4	5.69	1.10	300 ml
30 min	14.75	9.90	7.52	0.187	74.6	5.72	0.65	300 ml
35 min	14.75	9.90	7.51	0.189	74.5	5.73	0.62	300 ml

WATER SAMPLE OD-3 5-4-15

Time Collected: 14:45

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	Clear	Clear
Odor	NO	NO
Turbidity <100 (NTU)	NO	NO
Sheen/Free Product	NO	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	—	HCL	—

NOTES

PID - 0.0

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) | GROUND WATER SAMPLING LOG

Date	5-5-15	**Weather**	Overcast Fog 55°
Site Name	PAS Oswego	**Well #**	LR-6
Location	55 East Seneca St	**Evacuation Method**	Grundfos Low Flow Equip.
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel			

WELL INFORMATION

Depth of Well	ft			**Water Vol/ft for:**
Depth of Water	ft 10.64	**2" Diameter Well**	**= 0.163 X LWC**	X
Length of Water Column	ft	**4" Diameter Well**	**= 0.653 X LWC**	
Volume of Water in Well	gal	**6" Diameter Well**	**= 1.469 X LWC**	
3x Volume of Water in Well	gal	**14" Diameter Well**	**= 2.282 X LWC**	

Volume removed before Sampling	gals 3 gal
Did Well go dry?	NO

Measurements Taken From: ☒ Well Casing ☐ Protective Casing ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings		**Conductivity Standard Ratings**	
4.0 Standard		**84 S Standard**	
7.0 Standard		**1413 S Standard**	
10.0 Standard			

TEST EQUIPMENT DEPTHS WITHIN WELL

Time	Well Screen Depth	Depth of Intake Pump	Blank	BLANK	BLANK	BLANK	BLANK

WATER PARAMETERS 7:50

Time	Depth to Water	Temperature	pH	Conductivity ms/cm	ORP	DO mg/L (%)	Turbidity (NTU)	Flow Rate
5 min	11.60	9.62	7.80	1.012	11.8	1.37	3.53	300 mL
10 min	11.58	9.82	7.61	1.041	-7.1	0.66	1.64	300
15 min	11.60	9.91	7.49	1.048	-11.8	0.42	0.84	300
20 min	11.62	9.92	7.48	1.048	-13.0	0.40	0.72	300
25 min	11.60	9.95	7.42	1.050	-12.6	0.34	0.59	300
30 min	11.62	9.96	7.42	1.051	-13.2	0.33	0.60	300

WATER SAMPLE LR-6 5-5-15

Time Collected: 8:25

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	clear	clear
Odor	NO	NO
Turbidity <100 (NTU)	NO	NO
Sheen/Free Product	N.O	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	—	HCL	—

NOTES

PID - 0.0 PPM

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) | GROUND WATER SAMPLING LOG

Date	5-4-15	**Weather**	Sunny 75°
Site Name	PAS Oswego	**Well #**	LR-8
Location	55 East Seneca St	**Evacuation Method**	Grundfos Low Flow Equip.
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	M. Koenneckе		

WELL INFORMATION

Depth of Well	ft			**Water Vol/ft for:**
Depth of Water	ft 10.26	**2" Diameter Well**	**= 0.163 X LWC**	X
Length of Water Column	ft	**4" Diameter Well**	**= 0.653 X LWC**	
Volume of Water in Well	gal	**6" Diameter Well**	**= 1.469 X LWC**	
3x Volume of Water in Well	gal	**14" Diameter Well**	**= 2.282 X LWC**	

Volume removed before Sampling	gals 3.5 gal
Did Well go dry?	No

Measurements Taken From: ☒ Well Casing ☐ Protective Casing ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings		**Conductivity Standard Ratings**	
4.0 Standard		**84 S Standard**	
7.0 Standard		**1413 S Standard**	
10.0 Standard			

TEST EQUIPMENT DEPTHS WITHIN WELL

Time	Well Screen Depth	Depth of Intake Pump	Blank	BLANK	BLANK	BLANK	BLANK

WATER PARAMETERS 12:50

Time	Depth to Water	Temperature	pH	Conductivity ms/cm	ORP	DO mg/L	Turbidity (NTU)	Flow Rate
5 min	10.16	9.72	8.41	0.790	-37.9	0.72	10.3	350
10 min	10.05	10.72	7.84	0.909	-90.8	0.35	2.11	300
15 min	10.05	10.79	7.64	0.954	-94.1	0.29	1.12	300
20 min	10.05	10.50	7.54	0.960	-91.4	0.24	0.78	300
25 min	10.08	10.40	7.49	0.964	-88.2	0.19	1.06	300
30 min	10.06	10.45	7.46	0.967	-87.2	0.18	0.97	300
35 min	10.06	10.40	7.45	0.968	-86.9	0.17	1.05	300

5-4-15

WATER SAMPLE LR-8

Time Collected: 13:30

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	clear	clear
Odor	NO	NO
Turbidity <100 (NTU)	NO	NO
Sheen/Free Product	NO	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	9	—	HCL	—

NOTES

PID - 0.0
MS/MSD Collected

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) | GROUND WATER SAMPLING LOG

Date	5-4-15	**Weather**	Sunny 70°
Site Name	PAS Oswego	**Well #**	MW-21
Location	55 East Seneca St	**Evacuation Method**	Grundfos Low Flow Equip.
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	M. Koennecke		

WELL INFORMATION

Depth of Well	ft				**Water Vol/ft for:**
Depth of Water	ft 10,02	**2" Diameter Well**	**= 0.163 X LWC**		
Length of Water Column	ft	**4" Diameter Well**	**= 0.653 X LWC**		
Volume of Water in Well	gal	**6" Diameter Well**	**= 1.469 X LWC**	X	
3x Volume of Water in Well	gal	**14" Diameter Well**	**= 2.282 X LWC**		

Volume removed before Sampling	gals 3
Did Well go dry?	NO

Measurements Taken From: ☒ Well Casing ☐ Protective Casing ☐ Other:

INSTRUMENT CALIBRATION

PID Reading ~ 0,0

pH Buffer Readings
4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard

TEST EQUIPMENT DEPTHS WITHIN WELL

Time	Well Screen Depth	Depth of Intake Pump	Blank	BLANK	BLANK	BLANK	BLANK

WATER PARAMETERS 1130

Time	Depth to Water	Temperature C	pH	Conductivity ms/cm	ORP	DO (mg/L)	Turbidity (NTU)	Flow Rate
5 min	10,05	9.99 C	7.75	0.929	-81.2	8,62	1,51	300 mL
10 min	10,02	9,98	7,71	0,927	-84,7	5,84	1.21	300 ml
15 min	10,00	9,99	7,67	0,926	-86,9	5,43	1,02	300ml
20 min	10,00	9,99	7,65	0,932	-87,5	4,40	1,00	300ml
25 min	10,00	9,99	7,63	0,931	-89,1	4,17	0.54	300ml
30 min	10,00	9,99	7,62	0,931	-89,6	3,98	0,52	300 ml

WATER SAMPLE M-21 5-4-15

Time Collected: 12:05

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	clear	clear
Odor	NO	NO
Turbidity <100 (NTU)	NO	NO
Sheen/Free Product	NO	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	—	HCL	—

NOTES

M-21

X-1 - Collected

O'Brien & Gere Engineers, Inc. — Low Flow Ground Water Sampling Log

Date	5-5-15	Personnel	M. Foemmle	Weather	Sunny 62°
Site Name	PAS	Evacuation Method	Grundfos Pump	Well #	LCW-2
Site Location	Oswego NY.	Sampling Method	Low Flow	Project #	

Information:

Depth of Well * _____ ft.
Depth to Water * 11.32 ft.
Length of Water Column _____ ft.

* Measurements taken from 14"

X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 10:15

Elapsed Time	Depth To Water	Temperature	pH	ms/cm Conductivity	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min).
5 min	11.32	8.78	7.31	1.676	-83.5	0.58	13.8	300
10 min	11.32	8.82	7.27	1.671	-85.2	0.48	3.94	300
15 min	11.32	8.85	7.23	1.659	-89.2	0.40	4.08	300
20 min	11.32	8.86	7.19	1.639	-94.4	0.30	3.47	300
25 min	11.32	8.67	7.18	1.622	-97.3	0.22	3.29	300
30 min	11.32	8.61	7.17	1.608	-100.1	0.15	3.17	300
35 min	11.32	8.60	7.17	1.598	-99.3	0.09	3.05	300
40 min	11.32	8.61	7.17	1.595	-99.5	0.08	3.11	300

End Purge Time: 10:55

Water sample:

Time collected: 11:00

Total volume of purged water removed: 3.5 gal

Physical appearance at start
Color: Slight Yellow
Odor: Slight
Sheen/Free Product: NO

Physical appearance at sampling
Color: Slight Yellow
Odor: Slight
Sheen/Free Product: NO

Field Test Results:
Dissolved ferrous iron: _____
Dissolved total iron: _____
Dissolved total manganese: _____

Analytical Parameters: VOCs PID - 0.6 PPM

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

Low Flow Ground Water Sampling Log

Date	5-5-15	Personnel	M. Kovacs	Weather	P. Sunny 60°
Site Name	PAS	Evacuation Method	Grundfos Pump	Well #	LCW-4
Site Location	Oswego NY	Sampling Method	Low Flow	Project #	

Information:

Depth of Well * _____ ft.
Depth to Water * 18.05 ft.
Length of Water Column _____ ft.

* Measurements taken from 14"

X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 11:25

Elapsed Time	Depth To Water	Temperature	pH	MS/cm Conductivity	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min).
5 min	18.05	10.27	7.18	2.835	-106.5	0.74	8.83	300
10 min	18.05	10.17	7.12	2.737	-119.0	0.13	4.90	300
15 min	18.05	10.15	7.12	2.718	-120.3	0.13	4.50	300
20 min	18.05	10.14	7.12	2.705	-121.0	0.11	5.07	300
25 min	18.05	10.14	7.12	2.675	-122.0	0.08	4.55	300
30 min	18.05	10.13	7.12	2.660	-123.1	0.07	4.68	300
35 min	18.05	10.12	7.12	2.656	-123.4	0.07	4.86	300

End Purge Time: 12:00

Water sample:

Time collected: 12:05

Total volume of purged water removed: 3 gal

Physical appearance at start
- Color: Yellowish
- Odor: Slight
- Sheen/Free Product: No

Physical appearance at sampling
- Color: Yellowish
- Odor: Slight
- Sheen/Free Product: No

Field Test Results:
- Dissolved ferrous iron: _____
- Dissolved total iron: _____
- Dissolved total manganese: _____

Analytical Parameters: VOCs PID - 0.0 PPM

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

Low Flow Ground Water Sampling Log

Date	5-5-15	Personnel	M. Koenke	Weather	Sunny 55
Site Name	PAS	Evacuation Method	Grundfos Low Flow	Well #	M-22
Site Location	Oswego	Sampling Method	Low Flow / Grab	Project #	

Information:

Depth of Well * _____ ft.
Depth to Water * 10.94 ft.
Length of Water Column _____ ft.

* Measurements taken from 6"

X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 8:55

Elapsed Time	Depth To Water	Temperature	pH	ms/cm Conductivity	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min).
5 min	11.42	8.62	8.13	1.029	60.0	8.33	9.12	300
10 min	11.95	8.84	8.16	1.034	48.6	7.68	7.60	300
15 min	12.10	9.07	8.22	1.040	37.4	7.58	7.18	300
20 min	12.25	9.24	8.23	1.042	37.9	~~37.4~~ 7.46	6.73	300
25 min	12.30	9.40	8.24	1.044	38.8	7.33	6.60	300
30 min	12.34	9.43	8.24	1.046	42.2	7.23	5.99	300
35 min	12.35	9.41	8.25	1.046	40.4	7.27	5.57	300
40 min	12.35	9.36	8.25	1.046	41.8	7.26	5.14	300
45 min	12.35	9.41	8.25	1.046	42.1	7.27	5.12	300

End Purge Time: 9:40

Water sample:

Time collected: 9:45

Total volume of purged water removed: 3.5 gal

Physical appearance at start
- Color: Clear
- Odor: NO
- Sheen/Free Product: NO

Physical appearance at sampling
- Color: Clear
- Odor: NO
- Sheen/Free Product: NO

Field Test Results:
- Dissolved ferrous iron: _____
- Dissolved total iron: _____
- Dissolved total manganese: _____

Analytical Parameters: VOCs PID - 0.0 PPM

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	—	HCL	—

FUTURE REPORT

2015 – 2016

ANNUAL PROGRESS REPORT – Future

Operation, Maintenance and Long-term Monitoring Activities

PROJECT NAME: *Pollution Abatement Services Site*
Oswego, New York

PERIOD COVERED: JULY 2015 – JUNE 2016

ACTIONS PLANNED FOR THE YEAR

- Leachate removal activities will be performed during the period July 2015 through June 2016 at the PAS Oswego Site in accordance with the Operation, Maintenance and Long-term Monitoring (OM&M) Activities Plan (BBL, 1998 revised July 2012) (Work Plan). The OM&M activities will include pumping approximately 20,000 gallons per month from May through October and 10,000 gallons for the winter and spring months November through April.

- The leachate will be discharged to the City of Auburn New York Wastewater Treatment Plant under an approved permit consistent with the schedule presented below. However, the Oswego New York Eastside Waste Water Treatment Plant (Oswego WWTP) will continue to be retained as an alternate leachate treatment and disposal facility.

- Additional leachate sampling will be conducted as needed for treatment and disposal at the Auburn Wastewater Treatment Plant under the approved permit.

- Quarterly ground-water elevation monitoring is scheduled to be conducted on August 3, 2015, November 2, 2015, February 8, 2016 and May 2, 2016.

- Site maintenance activities will be conducted along with other monitoring and removal activities. Maintenance activities include cap vegetation control and inspection and maintenance of the storage shed, spill control materials and the perimeter fence. Snow removal will be performed on an as needed basis throughout the winter months. These activities will be performed in accordance with the approved Work Plan.

- Semi-annual groundwater and leachate quality sampling is scheduled to be conducted on November 2, 2015 and May 2, 2016. Based on the results for OD-3 and MW-22 we propose to discontinue monitoring MW-22 which was at or near detection for all performance standards in past sampling events. Continued monitoring of OD-3 is recommended for the next reporting period. Also, LR-6 has been at or near detection levels for all performance standards other than 1,1 dichloroethane and below the performance standard for 1,1 dichloroethane since 2000. Therefore, we propose annual sampling of LR-6 in the fall of each year instead of semi-annual sampling.

- The Institutional Control Implementation Plan (ICIP) includes the inspection requirements for the period following the execution and recording of the Easement, which were documented in the approved Remedial Action Completion Report. It states that following implementation of institutional controls on the Industrial Precision Products Property, the Site will be inspected on an annual basis to determine whether any intrusive activities have occurred. In addition, building and property records will be reviewed to ascertain whether or not any filings have been made for such activities. The ICIP provides for an annual report summarizing the findings of the inspection and record review to be prepared, along with a certification confirming that operation and

maintenance activities will continue, and that the annual report would be included in the annual OM&M progress report to be submitted to EPA in July of each year.

- The schedule for leachate removal events and tasks is provided below.

GROUND-WATER REMOVAL EVENT SCHEDULE 2015/2016						
	July 2015 Removal Events		August 2015 Removal Events		September 2015 Removal Events	
	First Event		First Event		First Event	
Removal	July 15		Aug 5		Sep 9	

GROUND-WATER REMOVAL EVENT SCHEDULE 2015/2016						
	October 2015 Removal Events		November 2015 Removal Events		December 2015 Removal Events	
	First Event		First Event		First Event	
Removal	Oct 7		Nov 4		Dec 9	

GROUND-WATER REMOVAL EVENT SCHEDULE 2015/2016						
	January 2016 Removal Events		February 2016 Removal Events		March 2016 Removal Events	
	First Event		First Event		First Event	
Removal	Jan 6		Feb 10		Mar 9	

GROUND-WATER REMOVAL EVENT SCHEDULE 2015/2016						
	April 2016 Removal Events		May 2016 Removal Events		June 2016 Removal Events	
	First Event		First Event		First Event	
Removal	Apr 6		May 4		June 8	