II - B

4TH QUARTER REPORT - 2011

QUARTERLY PROGRESS REPORT – 4th QUARTER 2011
Operation, Maintenance and Long-term Monitoring Activities

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

PERIOD COVERED: October – December (4th Quarter) 2011

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 50,020 gallons of leachate were removed during the period of October 2011 thru December 2011. Specific quantities of leachate removed during each month, along with historical leachate removal documentation, are described in this progress report. Leachate was pumped from the Site, and discharged into the City of Oswego (Oswego) sanitary sewer system. Leachate discharged into the Oswego sewer system was treated and disposed in the Oswego Eastside Wastewater Treatment Facility located at 71 Mercer St. in Oswego.

- Monthly pre-pumping groundwater elevation monitoring was performed at the Site on October 5, November 9, and December 7, 2011. Monthly groundwater elevation monitoring results for the SWW-series monitoring wells (SWW-1 through SWW-12), and leachate collection wells (LCW-1 through LCW- 4) were recorded on the Groundwater Elevation Monitoring Log (See Attachment B-1).

- On November 9, 2011, quarterly groundwater elevation monitoring was performed at the Site. Quarterly groundwater elevation monitoring results for the M-series wells M-21 thru M-23, the LR-series wells LR-2, -3, -6 and -8, the LD-series wells LD-3, -4, -5, -6, and -8, along with wells OS-1 and -3, OI-1, OD-3 and LS-6 were recorded onto the Groundwater Elevation Monitoring Log (See Attachment B-1).

- The semi-annual groundwater sampling was conducted on November 8, 2011 for long-term monitoring wells LR-6, LR-8 andM-21, and leachate collection wells LCW-2 and LCW-4. Sampling activities for long-term monitoring wells were conducted using low-flow sampling protocols described in the Work Plan. The associated data is provided in (Attachment B-4)

- Site maintenance activities were conducted monthly, in combination with the monthly leachate removal event which included the following inspections:

  - Visually inspect the Site slurry-wall containment vegetated cap for signs of burrowing vermin or surface anomalies. The Site Inspection Checklist Form was utilized to document comments pertaining to land cap, leachate discharge system, leachate collection system, and general site conditions.

- 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. No discrepancies were reported at the time of the inspection.

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

- The perimeter security fence and fence signage were inspected during each site visit to ensure the integrity and the security of the Site is maintained. Security fencing was inspected for the presence of any fallen tree limbs or overgrown vegetation. The field technician removed shallow rooted vegetation (brush) or other similar vegetation that had grown up along the security fence, or had fallen onto the fence from the Site bordering woodlands. A section of the perimeter fence in a low-lying area along the northeastern property line was observed to be in need of additional brush-clearing and fence repair. The additional support required to clear and repair this fence is scheduled for the second quarter of 2012.

- In addition, quarterly Site inspection and maintenance activities were completed on October 6, 2011, and recorded in the Site Inspection Check List (See Attachment B-2). Monthly maintenance activities at this Site included the following:

  - The removal of vegetation from the Site two concrete drainage troughs.
  - The removal of vegetation from the Site French drainage pipe.
  - Clearing of vegetation from the Site main entrance gate, Western, Northern and Eastern fence lines.
  - Cut and removed accumulated brush and small fallen or leaning brush from along the perimeter of the security fence.
  - Cleaned and organized wooden storage fence.
  - Mowed down heavy brush along the side of the concrete leachate storage tank.
  - Cleaned and inspected LCW-1, 2, 3 & 4 pump well power cabinets.

- On October 5, November 9, and December 7, 2011, an O'Brien & Gere field technician performed the monthly pre-pumping collection system inspection, of leachate collection wells LCW-1, 2, 3 & 4, along with inspection of the leachate discharge pumping system. In advance of each leachate removal event, O'Brien & Gere contacted the City of Oswego Eastside Wastewater Treatment Facility official, to inform the City of the planned discharged into the City of Oswego sanitary sewer system. Each leachate pumping event was approved by the City of Oswego, prior to the commencement of the discharge event.

- Upon completing the monthly leachate collection well inspection, the technician manually energized the 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, were recorded on the Leachate Disposal Checklist (See Attachment B-2).

- During the months of October, November and December 2011, O'Brien & Gere pumped a total of 50,020 gallons of leachate from the leachate collection tank, into the City of Oswego sanitary sewer system. The amount of leachate discharged during each removal event, along with flow totalizer, pH and temperature readings, are recorded on the Leachate Disposal Checklist completed for each removal event. The leachate pumping system consists of one electrically powered "Centrifugal Discharge Pump, flow totalizer and leachate sampling port located within the on-site wooden utility shed. The level of leachate remaining in the leachate collection tank after each leachate discharge pumping event is also recorded on the Leachate Disposal Checklist. Each monthly leachate discharge was performed using same discharge protocols.

- On November 9, 2011 one semi-annual leachate discharge composite sample was collected by O'Brien & Gere as required by the City of Oswego wastewater discharge permit. The sample was collected for analysis by compositing three grab samples taken from the discharge pump sample port. The sample chain of custody was completed, and the sampled delivered to Life Sciences Laboratories at the completion of the November 9, 2011 pumping activities. The next schedule semi-annual leachate discharge sample collection is scheduled for May of 2012.

- Upon completing each monthly removal event, the leachate discharge system was drained of residual leachate and prepared for storage. Residual leachate was returned to the leachate collection tank. The leachate collection tank enclosure door was locked and secured. During cold weather operations, the discharge piping heat trace system was verified to be on, and the utility shed lighting was turned off, and the doors locked. Prior to leaving the site, O'Brien & Gere closed and secured the chain lock at the main entrance gate.

- The PAS Oswego Site quarterly discharge report for the 4th quarter of 2011 was submitted to the City of Oswego on January 17, 2012, and provided the leachate volume and data collected for the quarter in compliance with the Oswego Wastewater Discharge Permit 6-2010-13. (See Attachment B-3)

- The PAS Oswego Site quarterly discharge report for the 4 th quarter of 2011 was submitted to the City of Auburn on December 22, 2011 in compliance with the Auburn Wastewater Discharge Permit 2011-01, although no leachate was disposed of at the Auburn Facility for the quarter. (See Attachment B-3)

- On November 8, 2011 the Site inspection and related activities required by the APS Institutional Control Plan (ICIP) were completed. The ICIP provides that the findings of the Site inspection and records review be documented, along with a certification confirming that operation and maintenance activities associated with the institutional controls and the Site continue, and that the certification be included in the annual progress report submitted to EPA each year. (See Attachment B-5)

DOCUMENTATION OF REMOVAL ACTIVITIES DURING PREVIOUS QUARTER:

- The completed Groundwater Elevation Monitoring Logs for the monitoring events performed on October 5, November 9, and December 7, 2011 are attached. (See Attachment B-1)

- The completed Leachate Disposal Checklist for the monthly removal events of October 5, November 9, and December 7, 2011 and the Monthly and Quarterly Site Inspection Checklist for October 5, November 9, and December 7, 2011 are attached (See Attachment B-2).

- A copy of the PAS Oswego Site quarterly discharge report (4th quarter 2011) submitted to the City of Oswego on January 17, 2012 including the semi-annual discharge effluent sampling results in performance of the City of Oswego Wastewater Discharge Permit requirements, and a quarterly discharge report was also submitted to the City of Auburn on December 22, 2011. (See Attachment B-3)

- Groundwater sampling logs and data – wells LCW-2, LCW-4, LR-6, LR-8, M-21 (See Attachment B-4)

- The Institutional Control Certification Memorandum documenting the November 8, 2011 Site inspection and related activities is included in conformance of the ICP. (See Attachment B-5)

ATTACHMENT B-1

GROUNDWATER ELEVATION DATA

O'Brien [illegible] Operation
[illegible] Site
Oswego, New York
Pre-Pumping Monitoring Well Levels

October 5, 2011

Well	Ground	Riser	October 2011			Within Range?				Ground-Water
Number	Elevation	Elevation	Reading 1	Reading 2	Reading 3	Average	Low	High	Y / N	Elevation
SWW1	286.20	289.33	9.56	9.56	9.56	10.53	9.12	11.90	Yes	279.77
SWW2	286.30	289.37	15.95	15.95	15.95	16.45	16.02	17.03	No	273.42
SWW3	286.00	286.50	17.12	17.12	17.12	17.39	17.10	17.82	Yes	269.38
SWW4	282.90	283.60	14.52	14.52	14.52	16.16	13.90	17.46	Yes	269.08
SWW5	275.90	277.02	12.88	12.88	12.88	13.33	12.78	13.90	Yes	264.14
SWW6	270.90	273.06	8.42	8.42	8.42	9.24	8.26	10.03	Yes	264.64
SWW7	273.30	277.93	8.35	8.35	8.35	8.82	8.30	9.22	Yes	269.58
SWW8	275.70	278.24	4.60	4.60	4.60	7.52	4.04	11.15	Yes	273.64
SWW9	283.30	285.55	18.20	18.20	18.20	18.65	18.04	19.34	Yes	267.35
SWW10	279.30	280.43	11.26	11.26	11.26	15.47	10.64	18.80	Yes	269.17
SWW11	271.00	273.50	9.20	9.20	9.20	9.59	9.20	10.38	No	264.30
SWW12	270.20	272.82	11.48	11.48	11.48	13.47	8.10	16.08	Yes	261.34
LCW-1	271.40	272.21	8.20	8.20	8.20	8.58	8.42	9.30	No	264.01
LCW-2	272.60	274.44	10.44	10.44	10.44	10.84	10.70	11.54	No	264.00
LCW-3	283.30	284.36	17.65	17.65	17.65	18.22	17.96	19.20	No	266.71
LCW-4	283.80	285.70	17.86	17.86	17.86	17.88	16.40	19.21	Yes	267.84
OS-1	269.63	272.10								
OI-1	269.14	272.00								
OS-3	274.63	277.89								
OD-3	274.96	277.85								
LD-3	275.80	278.62								
LD-4	276.30	279.25								
LD-5	270.02	272.94								
LS-6	271.40	274.14								
LD-6	270.09	274.03								
LD-8	269.90	272.83								
LR-2	287.50	289.85								
LR-3	275.50	278.06								
LR-6	270.90	274.39								
LR-8	270.00	273.42								
M-21	270.28	272.32								
M-22	270.40	273.88								
M-23	267.98	270.49								

O'Brien [illegible] Operation
[illegible] Site
Oswego, New York
Pre-Pumping Monitoring Well Levels

November 9, 2011

Well	Ground	Riser	November 2011			Within Range?				Ground-Water
Number	Elevation	Elevation	Reading 1	Reading 2	Reading 3	Average	Low	High	Y / N	Elevation
SWW1	286.20	289.33	9.54	9.54	9.54	9.74	8.62	11.62	Yes	279.79
SWW2	286.30	289.37	15.75	15.75	15.75	16.33	15.75	17.40	No	273.62
SWW3	286.00	286.50	16.96	16.96	16.96	17.24	16.60	17.92	Yes	269.54
SWW4	282.90	283.60	15.24	15.24	15.24	15.10	13.44	17.12	Yes	268.36
SWW5	275.90	277.02	12.78	12.78	12.78	13.23	12.55	14.04	Yes	264.24
SWW6	270.90	273.06	8.88	8.88	8.88	8.79	7.95	9.58	Yes	264.18
SWW7	273.30	277.93	8.15	8.15	8.15	8.71	8.02	9.43	Yes	269.78
SWW8	275.70	278.24	4.02	4.02	4.02	5.64	3.94	11.38	Yes	274.22
SWW9	283.30	285.55	17.92	17.92	17.92	18.42	17.48	20.05	Yes	267.63
SWW10	279.30	280.43	12.02	12.02	12.02	12.79	9.71	18.65	Yes	268.41
SWW11	271.00	273.50	8.90	8.90	8.90	9.43	8.81	10.38	Yes	264.60
SWW12	270.20	272.82	9.74	9.74	9.74	11.01	8.70	15.24	Yes	263.08
LCW-1	271.40	272.21	8.24	8.24	8.24	8.77	8.20	9.73	Yes	263.97
LCW-2	272.60	274.44	10.50	10.50	10.50	11.02	10.44	11.98	Yes	263.94
LCW-3	283.30	284.36	17.62	17.62	17.62	18.10	17.40	19.56	Yes	266.74
LCW-4	283.80	285.70	18.20	18.20	18.20	18.16	16.64	19.60	Yes	267.50
OS-1	269.63	272.10	10.64	10.64	10.64	11.66	8.60	14.75		261.46
OI-1	269.14	272.00	13.18	13.18	13.18	12.55	11.14	14.05		258.82
OS-3	274.63	277.89	15.80	15.80	15.80	15.93	13.92	18.58		262.09
OD-3	274.96	277.85	15.58	15.58	15.58	15.76	13.76	18.42		262.27
LD-3	275.80	278.62	4.42	4.42	4.42	6.50	4.32	11.77		274.20
LD-4	276.30	279.25	11.38	11.38	11.38	12.73	9.85	17.15		267.87
LD-5	270.02	272.94	10.36	10.36	10.36	11.84	9.10	15.75		262.58
LS-6	271.40	274.14	11.65	11.65	11.65	12.34	10.25	14.76		262.49
LD-6	270.09	274.03	11.00	11.00	11.00	11.29	10.12	12.86		263.03
LD-8	269.90	272.83	9.80	9.80	9.80	10.07	7.15	15.38		263.03
LR-2	287.50	289.85	13.22	13.22	13.22	13.57	12.70	14.96		276.63
LR-3	275.50	278.06	8.12	8.12	8.12	9.12	7.80	12.00		269.94
LR-6	270.90	274.39	10.54	10.54	10.54	11.04	10.05	12.72		263.85
LR-8	270.00	273.42	10.15	10.15	10.15	10.70	9.45	12.84		263.27
M-21	270.28	272.32	9.76	9.76	9.76	10.35	9.17	12.50		262.56
M-22	270.40	273.88	10.50	10.50	10.50	10.98	10.00	12.62		263.38
M-23	267.98	270.49	12.80	12.80	12.80	13.00	12.35	14.25		257.69

O'Brien e Operation
FAS Site
Oswego, New York
Pre-Pumping Monitoring Well Levels

December 7, 2011

Well	Ground	Riser	December 2011			Within Range?				Ground-Water
Number	Elevation	Elevation	Reading 1	Reading 2	Reading 3	Average	Low	High	Y / N	Elevation
SWW1	286.20	289.33	8.98	8.98	8.98	8.84	7.80	9.96	Yes	280.35
SWW2	286.30	289.37	15.70	15.70	15.70	16.00	15.20	17.18	Yes	273.67
SWW3	286.00	286.50	16.88	16.88	16.88	17.00	16.17	17.85	Yes	269.62
SWW4	282.90	283.60	13.10	13.10	13.10	13.32	10.92	15.10	Yes	270.50
SWW5	275.90	277.02	12.78	12.78	12.78	12.95	12.28	13.94	Yes	264.24
SWW6	270.90	273.06	7.86	7.86	7.86	8.10	7.30	8.52	Yes	265.20
SWW7	273.30	277.93	7.94	7.94	7.94	8.31	7.57	8.96	Yes	269.99
SWW8	275.70	278.24	3.62	3.62	3.62	4.28	3.40	5.85	Yes	274.62
SWW9	283.30	285.55	17.46	17.46	17.46	17.92	16.65	19.65	Yes	268.09
SWW10	279.30	280.43	9.34	9.34	9.34	10.16	8.69	12.18	Yes	271.09
SWW11	271.00	273.50	8.95	8.95	8.95	9.21	8.50	10.23	Yes	264.55
SWW12	270.20	272.82	8.26	8.26	8.26	9.01	7.72	11.55	Yes	264.56
LCW-1	271.40	272.21	8.48	8.48	8.48	8.85	8.65	9.74	No	263.73
LCW-2	272.60	274.44	10.72	10.72	10.72	11.10	10.91	12.00	No	263.72
LCW-3	283.30	284.36	17.20	17.20	17.20	17.78	17.42	18.72	No	267.16
LCW-4	283.80	285.70	18.64	18.64	18.64	18.25	16.53	19.64	Yes	267.06
OS-1	269.63	272.10								
OI-1	269.14	272.00								
OS-3	274.63	277.89								
OD-3	274.96	277.85								
LD-3	275.80	278.62								
LD-4	276.30	279.25								
LD-5	270.02	272.94								
LS-6	271.40	274.14								
LD-6	270.09	274.03								
LD-8	269.90	272.83								
LR-2	287.50	289.85								
LR-3	275.50	278.06								
LR-6	270.90	274.39								
LR-8	270.00	273.42								
M-21	270.28	272.32								
M-22	270.40	273.88								
M-23	267.98	270.49								

ATTACHMENT B-2

SITE INSPECTION CHECKLIST
AND LEACHATE DISPOSAL CHECKLIST

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date 10-5-11 Time 8:30

Field Technician MARTIN Koenneke Weather Conditions OVERCAST 55°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap	√		
Signs of burrowing vermin	√		ONE HOLE FOUND FILLED IN
Land cap irregularities (note anomaly)	√		OK
French drainage system clear and function able	√		Yes
Concrete trough clear and function able	√		WORKING ON CLEARING OF VEGITATION
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)	√		TURNED 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

10-5-11

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

Additional remarks (use separate sheet is required)

Monthly well Levels / Pump Leachate To City of Oswego app - 20,000 gallons

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date 10-6-11 Time 8:00

Field Technician MARTin Koennecke Weather Conditions Sunny 50°

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		√	CLEAR
Concrete trough clear and function able		√	CLEARED TROUGH - GOOD
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 use)	√		Yes
Heat trace system operational & verified in the "ON" position (during wintertime periods)	√		ON
Flow totalizer operational. Flow readings recorded onto "Leachate Discharge Form"	√		Yes
Leachate Collection System			
Leachate holding tank visually inspected for structural integrity	√		will need painting in spring

Leachate holding tank metal roof inspected for structural integrity	✓		will need painting in spring
Leachate tank access doors locked (post pump out)	✓		Yes
Pump power panel(s) secured	✓		Yes
Monitoring Wells (MW)			
Locks installed	✓		OK need to replace 2 locks
MW's marked & identifiable	✓		yes
General Site Condition			
Trees & brush cleared off security fence		✓	worked on clearing limbs
Perimeter security fence intact & free of damage		✓	need repair in swamp area
Site access driveway inspected	✓		OK
Security access gates function able	✓		OK
Site gate signage intact	✓		need sign
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	✓		OK
Emergency contact information posted within shed	✓		Yes

Additional remarks (use separate sheet is required)

cleared concrete trough, worked on clearing fence

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date 11-9-11 Time 7:45

Field Technician Martin Koewnake Weather Conditions Sunny 55°

Check √ (tasks completed in each event)

Inspection Features	Monthly	Quarterly	Remarks (indicate accomplishment of each maintenance task)
Land Cap			
Signs of burrowing vermin	√		none visible
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 use)	√		Yes
Heat trace system operational & verified in the "ON" position (during wintertime periods)	√		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
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		✓	
Perimeter security fence intact & free of damage		✓	SWAMP AREA NEED REPAIR
Site access driveway inspected		✓	OK
Security access gates function able	✓		Yes
Site gate signage intact	✓		NEED SIGN'S
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)

Quarterly well Levels, Pump out 20,000 gal to City of Oswego
Semi Annual well Sampling completed This week
Semi ANNUAL TANK DISCHARGE SAMPLE TAKEN, SPLIT SAMPLE with City of Oswego
CLAY McCLAIN/KEVIN STONE ON SITE

O'BRIEN & GERE

Site Inspection Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date 12-7-11 Time 7:30

Field Technician MARTin Koenwecke Weather Conditions LIGHT RAIN 36°

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		Good
Concrete trough clear and function able	V		Yes
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 use)	V		Yes
Heat trace system operational & verified in the "ON" position (during wintertime periods)	V		ON
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

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 10-5-11 Time: 8:30

Field Technician MARTIN Koennecke Weather Conditions overcast 55°

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	9:40	11:40		↓	↓
	LCW-2	9:40	11:40		↓	↓
	LCW-3	NOT PUMPED			↓	↓
	LCW-4	9:40	11:40		168	↓
					Total	20,160

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	10:55	14:50	6.82	52°	160070	180075	20,005
Pump Info	**Flow Rate (GPM)**	**Prime Time**	**Pump Pressure**	**Pump Vacuum**			
	83.5	20min	Ø	6"			

	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: 11-9-11 Time: 7:45

Field Technician Martin Koenecke Weather Conditions Sunny 55°

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"	LCW-1	855	10:55	9"	164 GPM	20,000
	LCW-2	855	10:55			
	LCW-3	NOT PUMPED				
	LCW-4	855	10:55			
					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	1345	6.8	52°	180075	200080	20005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	84	25min	0	8"-10"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-9-11	Port #1	Composite	10:45	6.8	52°

SPLIT Sample with City of Oswego

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-7-11 Time: 7:30

Field Technician Martin Koennecke Weather Conditions Light Rain 36°

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"	LCW-1	8:50	9:50	42"	168	10065
	LCW-2	8:50	9:50			
	LCW-3	8:50	8:10			
	LCW-4	8:50	9:50			
					Total	10065

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	10:05	12:05	6.78	52°	200080	210,090	10,010
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.5	15 min	Ø	8"-10"			

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

Leachate holding tank metal roof inspected for structural integrity	V		OK
Leachate tank access doors locked (post pump out)	V		Yes
Pump power panel(s) secured	V		Yes
Monitoring Wells (MW)			
Locks installed	V		Yes
MW's marked & identifiable	V		OK
General Site Condition			
Trees & brush cleared off security fence	V	V	OK
Perimeter security fence intact & free of damage		V	NEED WORK IN SWAMPY AREA
Site access driveway inspected	V		OK
Security access gates function able	V		Yes
Site gate signage intact	V		No sign
Interior & exterior of utility storage shed inspected for damage & secure with locks	V		Good
Fire extinguisher serviceable, inspected, and inspection recorded	V		Yes
Spill control material inspected & adequate	V		Stocked
PPE available and utilized as required	V		Yes
Emergency contact information posted within shed	V		Yes

Additional remarks (use separate sheet is required)

Monthly well Levels, Pump Leachate To City of Oswego 10,000 gallons

ATTACHMENT B-3

QUARTERLY POTW DISCHARGE REPORTS
4TH QUARTER 2011

de maximis, inc.

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

December 22, 2011

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

Re: 4th Quarter Progress Report 2011
PAS Oswego

Dear Mr. O'Brien,

As per our conversation, I am sending you this letter to confirm that the PAS Oswego Site has not shipped or discharged any wastewater from the PAS Oswego collection system to the City of Auburn POTW since September 2010. This has been due to the EPA allowance of an alternate disposal method. However, we retain the option for disposal of PAS Oswego wastewater at the Auburn POTW under Permit 2011-01 in the event that the current disposal method is unavailable in the future. We understand this permit is valid through 2014. As you requested to maintain the permit we will continue to send a quarterly report to you although no wastewater is projected for discharged.

- **Cumulative gallons removed for discharge in Auburn 4th Qtr. 2011 - 0**
- **Cumulative gallons removed for discharge in Auburn over 2011 - 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 under EPA review. 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
Project Manager

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

January 17, 2012

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

Re: Quarterly Discharge Report – 4th Quarter 2011
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 2011 through December 2011.

The total gallons of leachate discharged during the fourth quarter of 2011 are 50,020 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. The semi-annual sampling event under the permit was performed on November 9, 2011. The corresponding data is provided in as Attachment II.

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

Sincerely,
de maximis, inc.

Clay McClarnon

CMC/dlb

Attachments

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

TABLE 1 - PAS OSWEGO SITE QUARTERLY REPORT FOR CITY OF OSWEGO (January 2012)
LEACHATE DISCHARGE TO OSWEGO EASTSIDE WASTEWATER TREATMENT FACILITY
(Oswego SIU Wastwater Discharge Permit No.6-2010-13)

4Q 2010		1Q 2011		2Q 2011		3Q 2011		4Q 2011	
Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged	Date Discharged (temp/pH)	Gallons Discharged
10/28/2010	20,000	1/5/2011	10,000	4/6/2011	10,010	7/6/2011	10,000	10/5/11	20,005
52/6.2		45/6.8		43/6.3		52/6.8		52/6.8	
11/2/2010	20,000	2/9/2011	10,010	5/4/2011	10,020	8/4/2011	10,020	11/9/11	20,005
50/6.4		42/6.8		46/6.8		54/6.8		52/6.8	
12/6/2010	20,000	3/2/2011	10,000	6/8/2011	10,005	9/6/2011	20,005	12/7/11	10,010
50/6.7		42/6.4		52/7.1		54/6.6		52/6.8	
Total Discharged	60,000		30,010		30,035		40,025		50,020
Date Sampled*	10/28/11		3/2/11		Not sampled		Not sampled		11/9/11
Analytes	mg/L		mg/L		mg/L		mg/L		mg/L
Cyanide	ND		ND						ND
Cadmium	ND		ND						ND
Chromium (total)	0.015		0.014						0.014
Copper	ND		0.011						0.01
Lead	ND		ND						ND
Nickel	0.58		0.65						0.56
Silver	ND		ND						ND
Zinc	ND		ND						ND
Mercury	ND		ND						ND
BOD 5	13		32						22
TSS	9		93						83
Phenolics	0.14		0.11						0.12
pH	7.2		6.4						6.7

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

Prpared by d is, inc. 1/17/2

ATTACHMENT I

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 10-5-11 Time: 8:30

Field Technician MARTIN Koenwecke Weather Conditions overcast 55°

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	9:40	11:40		↓	↓
	LCW-2	9:40	11:40		↓	↓
	LCW-3	NOT PUMPED			↓	↓
	LCW-4	9:40	11:40		168	↓
					Total	20,160

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	10:55	14:50	6.82	52°	160070	180075	20,005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.5	20min	Ø	6"			

	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: 11-9-11 Time: 7:45

Field Technician MARTIN Koenneke Weather Conditions Sunny 55°

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"	LCW-1	855	10:55	9"	164 GPM	20,000
	LCW-2	855	10:55			
	LCW-3	NOT PUMPED				
	LCW-4	855	10:55			
					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	1345	6.8	52°	180,075	200,080	20,005
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	84	25 min	0	8"-10"			

	Semi-Annual Leachate Discharge Sampling (Per the City of Oswego Permit)					
	Date	Sample Location	Sample Volume	Sample Time	pH	Temperature
Sample #1	11-9-11	Port #1	Composite	10:45	6.8	52°

SPLIT Sample with City of Oswego

O'BRIEN & GERE

Leachate Disposal Checklist

Former Pollution Abatement Services (PAS Oswego)
Oswego, NY

Date: 12-7-11 Time: 7:30

Field Technician MARTin Koenneke Weather Conditions Light RAIN 36°

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"	LCW-1	8:50	9:50	42"	168	10065
	LCW-2	8:50	9:50			
	LCW-3	8:50	9:00			
	LCW-4	8:50	9:50			
					Total	10065

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	10:05	12:05	6.78	52°	200080	210,090	10,010
Pump Info	Flow Rate (GPM)	Prime Time	Pump Pressure	Pump Vacuum			
	83.5	15 min	0	8"-10"			

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

ATTACHMENT II

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

Tuesday, November 29, 2011

Kevin Stone
O'Brien & Gere Inc. of North America
555 E Genesee Street
Fayetteville, NY 13066

TEL: 315-637-2234

Project: PAS OSWEGO SEMI-ANNUAL EFFLUENT
RE: Analytical Results Order No.: K1111101

Dear Kevin Stone:

Life Science Laboratories, Inc. received 1 sample(s) on 11/9/2011 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

Anthony Crescenzi
Project Manager

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

Analytical Results

StateCertNo: 10248

CLIENT O'Brien & Gere Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001A
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (BOD5)			**SM 18-20 5210 B**			
Biochemical oxygen demand (BOD5)	22		4.0	mg/L	1	11/09/11 16:19
LABORATORY (PH)			**SM 18-20 4500-H B**			
pH	6.74		1.00	pH Units	1	11/23/11
RESIDUE-NON-FILTERABLE (TSS)			**SM 18-20 2540 D**			
Residue-non-filterable (TSS)	83		5.0	mg/L	1	11/15/11 14:00

Qualifiers:

- * Value exceeds Maximum Contaminant 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: 11/29/11 10:09 **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 Inc. of North America	**Lab ID:**	**K1111101-001B**
Project:	PAS Oswego Semi-Annual Effluent	**Client Sample ID:**	*Effluent-Tank*
W Order:	K1111101	**Collection Date:**	11/09/11 10:45
Matrix:	WATER	**Date Received:**	11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
PHENOLICS, TOTAL RECOVERABLE			EPA 420.1		(E420.1)	
Phenolics, Total Recoverable	0.12		0.050	mg/L	10	11/11/11

Qualifiers:

- * Value exceeds Maximum Contaminant 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

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

Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001C
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
MERCURY			**EPA 245.1**		**(E245.1)**	
Mercury	ND		0.00020	mg/L	1	11/21/11 14:56
TOTAL METALS BY ICP			**EPA 200.7**		**(E200.2)**	
Cadmium	ND		0.010	mg/L	1	11/14/11 12:49
Chromium	0.014		0.010	mg/L	1	11/14/11 12:49
Copper	0.010		0.010	mg/L	1	11/14/11 12:49
Lead	ND		0.010	mg/L	1	11/14/11 12:49
Nickel	0.56		0.010	mg/L	1	11/14/11 12:49
Silver	ND		0.010	mg/L	1	11/14/11 12:49
Zinc	ND		0.020	mg/L	1	11/14/11 12:49

Qualifiers:

- * Value exceeds Maximum Contaminant 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: 11/23/11 11:12

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 Inc. of North America	**Lab ID:**	**K1111101-001D**
Project:	PAS Oswego Semi-Annual Effluent	**Client Sample ID:**	*Effluent-Tank*
W Order:	K1111101	**Collection Date:**	11/09/11 10:45
Matrix:	WATER	**Date Received:**	11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CYANIDE, TOTAL			**EPA 335.4**		**(E335.4)**	
Cyanide, Total	ND		0.010	mg/L	1	11/15/11

Qualifiers:

- * Value exceeds Maximum Contaminant 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: 11/29/11 10:09 **Project Supervisor:** Anthony Crescenzi

K111101

Life Sciences Laboratory, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

Chain Of Custody / Analysis Request

Client Contact: (name, co., address)
Kevin.Stone@OBG.Com
O'Brien & Gere Operations, LLC (for de maximis inc.)
7600 Morgan Road
Liverpool, NY 13090

Hardcopy Report To: See Special Instructions Below
Invoice To: Kevin Stone - OB&G Operations

Privileged & Confidential
EDD To: Demaximis
Sampler: Martin Koennecke
P O #: On file
Analysis Turnaround Time:
Standard - X
Rush Charges Authorized for -
2 weeks -
1 week -
Next Day -

Site Name: Former Pollution Abatement Services (PAS Oswego)
Location of Site: 55 East Seneca St. Oswego, NY

AESI Ref:
COC #: WA:
Lab Use Only
Lab Proj #:
Lab ID:
Job No.:

#	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix			Comp/Grab	Field Filtered	BOD / TSS / pH	Total Phenols	Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn	CN	Lab Sample Number
											Units						
											Preservative		1				
1	Effluent Discharge Pump House Sample Port #1			Effluent-Tank	11-9-11	1045	Composite ~~Multi-Grab~~	Water			C	N	✓	✓	✓	✓	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Sample Description	pH	Temp (°C)	Flow	Free Chlorine

Notes:

Relinquished by: [signature]	Company	O'Brien & Gere	Received by:	Company		Condition		Custody Seals Intact	
	Date/Time	11-9-11 / 1505		Date/Time		Cooler Temp.			
Relinquished by	Company		Received by: [signature]	Company		Condition		Custody Seals Intact	
	Date/Time			Date/Time 11-9-11	15:05	Cooler Temp.	5.0 [illegible]		

Preservatives: 0 = None; [1 = HCL]; [2 = HNO3]; [3 = H2SO4]; [4 = NaOH]; [5 = Zn. Acetate]; [6 = MeOH]; [7 = NaHSO4]; 8 = Other (specify):

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OGINA PAS

Date and Time Received: 11/9/2011 3:05:00 PM

Work Order Number: K1111101

Received by: gls

Checklist completed by: GS (Initials) 11-9-11 (Date)

Reviewed by: AC (Initials) 11-5-11 (Date)

Delivery Method: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Applicable ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☑ N ☐ NA ☐		
<2	1:1 HCL	Yes ☐ N ☐ NA ☑		
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

Corrective Action:

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

Date	11-8-11	**Weather**	overcast 55°
Site Name	PAS Oswego	**Well #**	LCW-2
Location	55 East Seneca St	**Evacuation Method**	Grunfus Low Flow
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	Martin Koennecke		

WELL INFORMATION

Depth of Well	ft	19.95			**Water Vol/ft for:**
Depth of Water	ft	10.52	**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	
3x Volume of Water in Well	gal		14"		

Volume removed before Sampling gals 3 gal
Did Well go dry? no

Measurements Taken From: ☒ Well Casting ☐ Protective Casting ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings

4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard
PID 3.5 - 15.0 Avg. 4.0

WATER PARAMETERS

Time	Depth to Water	Temperature	pH	Conductivity ms/cm	ORP	DO (%)	Turbidity (NTU)	Flow Rate
10:05								
5 min	10.52	12.93	6.73	1,760	-105.8	14.9	0.65	300 ml min
10 min	10.52	13.03	6.63	1,761	-123.1	20.9	1.2	300 ml min
15 min	10.52	13.07	6.62	1.755	-130.0	24.5	0.65	300 ml/min
20 min	10.52	13.07	6.61	1.754	-133.6	25.2	0.85	300 ml/min
25 min	10.52	13.07	6.61	1.753	-134.8	25.9	1.0	300 ml min
30 min	10.52	13.07	6.60	1.753	-135.2	25.8	0.85	300 ml min

WATER SAMPLE

Time Collected: 10:35

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	clear	clear
Odor	~~Slight~~ Slight	Slight

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

11-8-11 LCW-2

Turbidity <100 (NTU)	0.85
Sheen/Free Product	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	NO	HCL	—

NOTES

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

Date	11-8-11	**Weather**	P-Sunny 63°
Site Name	PAS Oswego	**Well #**	LCW-4
Location	55 East Seneca St	**Evacuation Method**	Grunfus Low Flow
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	MARTin Koennecke		

WELL INFORMATION

					Water Vol/ft for:
Depth of Well	ft	28,80			
Depth of Water	ft	18,20	**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**	
3x Volume of Water in Well	gal		14"		

Volume removed before Sampling gals
Did Well go dry?

Measurements Taken From: ☒ Well Casting ☐ Protective Casting ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings		**Conductivity Standard Ratings**	
4.0 Standard		**84 S Standard**	
7.0 Standard		**1413 S Standard**	
10.0 Standard		PID	0.0

WATER PARAMETERS

Time	Depth to Water	Temperature	pH	Conductivity	ORP	DO (%)	Turbidity (NTU)	Flow Rate
11:20								
5min	18.20	12.42	6.63	3.518	-92.8	14.8	1.3	300
10min	18.20	12.46	6.61	3.547	-92.2	21.8	0,75	300
15min	18.20	11.73	6.61	3.418	-119.7	23.0	0,80	300
20min	18.20	11.74	6.61	3.388	-125.2	22.8	0,75	300
25min	18,20	11.73	6,61	3.279	-130.1	23.0	0,80	300
30min	18,20	11.74	6.61	3.276	-134.0	23.2	0,65	300
35min	18.20	11.72	6.61	3.274	-135.8	23.4	0.65	300
40min	18.20	11.71	6.61	3.270	-137.0	23.8	0,75	300

WATER SAMPLE

Time Collected: 12:00

Characteristics	**Physical Appearance At Start**	**Physical Appearance At Sampling**
Color	clear	clear
Odor	SLIGHT	SLIGHT

O'BRIEN & GERE

	11-8-11	LCW-4
Turbidity <100 (NTU)		0.75
Sheen/Free Product		NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	3	NO	HCL	—

NOTES

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

Date	11-8-11	**Weather**	Light Rain Showers 55°
Site Name	PAS Oswego	**Well #**	LR-60
Location	55 East Seneca St	**Evacuation Method**	Grunfus Low Flow
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	Martin Koenieck		

WELL INFORMATION

Depth of Well	ft	60.15			**Water Vol/ft for:**
Depth of Water	ft	10.56	**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				

Volume removed before Sampling gals 3gal
Did Well go dry? no

Measurements Taken From: ☒ Well Casting ☐ Protective Casting ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings

4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard
PID 0.0

WATER PARAMETERS

Time	Depth to Water	Temperature	pH	Conductivity	ORP	DO (%)	Turbidity (NTU)	Flow Rate
8:40								
5 min	11.10	10.88	7.53	0.900	-14.9	12.6	2.7	300 ml/min
10 min	11.24	10.89	7.30	0.902	-18.1	17.0	2.6	300 ml/min
15 min	11.24	10.96	7.22	0.997	-23.4	16.9	2.3	300 ml/min
20 min	11.26	10.94	7.06	1.0101	-52.6	15.9	2.4	300 ml/min
25 min	11.26	10.96	7.03	1.117	-37.6	15.5	2.2	300 ml/min
30 min	11.26	10.96	7.01	1.121	-30.7	13.9	2.3	300 ml/min
35 min	11.26	10.96	6.99	1.123	-29.6	13.7	2.2	300 ml/min
40 min	11.26	10.96	6.99	1.123	-29.3	13.5	2.1	300 ml/min

WATER SAMPLE

Time Collected: 9:20

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	Clear	Clear
Odor	NO	NO

11-8-11 LR-6

Turbidity <100 (NTU)	2.1
Sheen/Free Product	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 ml	glass	6	NO	HCL	—

NOTES

X-1 COLLECTED

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

Date 11-7-11		**Weather**	P. Sunny 55°
Site Name PAS	PAS Oswego	**Well #**	LR-8
Location	55 East Seneca St	**Evacuation Method**	Grunfus Low Flow
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel			

WELL INFORMATION

Depth of Well	ft 42.75			**Water Vol/ft for:**	
Depth of Water	ft 10.15	**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				

Volume removed before Sampling gals
Did Well go dry?

Measurements Taken From: ☒ Well Casing ☐ Protective Casing ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings

4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard

PID Reading 0.0 PPM

WATER PARAMETERS

Time	Depth to Water	Temperature	pH	Conductivity	ORP	DO (%)	Turbidity (NTU)	Flow Rate
1330								
5 min	11.10	10.84	7.06	0.987	-114.8	12.0	26	300 mL/min
10 min	11.32	10.83	6.98	1.025	-121.7	9.2	4.1	300 mL "
15 min	11.32	10.85	6.94	1.038	-113.5	9.0	3.1	300 mL "
20 min	11.32	10.84	6.92	1.042	-118.1	8.3	2.9	300 mL/min
25 min	11.32	10.85	6.91	1.043	-113.7	8.1	2.8	300 mL/min
30 min	11.32	10.85	6.89	1.049	-107.0	8.2	2.4	300 mL
35 min	11.32	10.85	6.88	1.047	-108.2	8.4	2.0	300 mL
40 min	11.32	10.85	6.88	1.047	-108.5	8.4	2.1	300 mL

WATER SAMPLE

Time Collected: 14:15

Characteristics	**Physical Appearance At Start**	**Physical Appearance At Sampling**
Color	Clear	Clear
Odor	NE	NO

LR-8

Turbidity <100 (NTU) 210
Sheen/Free Product NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 mL	Glass	9	NO	HCL	—

NOTES

MS / MSD Collected

FORMER POLLUTION ABATMENT SERVICES (PAS OSWEGO) **GROUND WATER SAMPLING LOG**

Date	11-7-11	**Weather**	OVERCAST 50°
Site Name	PAS Oswego	**Well #**	MW-21
Location	55 East Seneca St	**Evacuation Method**	Grunfus Low Flow
Project Number		**Sampling Method**	EPA Low Flow Method II
Personnel	MARTIN Koennecke		

WELL INFORMATION

Depth of Well	ft	39.60			**Water Vol/ft for:**
Depth of Water	ft	9.76	**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				

Volume removed before Sampling gals
Did Well go dry?

Measurements Taken From: ☒ Well Casting ☐ Protective Casting ☐ Other:

INSTRUMENT CALIBRATION

pH Buffer Readings

4.0 Standard
7.0 Standard
10.0 Standard

Conductivity Standard Ratings
84 S Standard
1413 S Standard

PID Reading - 0.0 PPM

WATER PARAMETERS

Time	Depth to Water	Temperature	pH	Conductivity	ORP	DO (%)	Turbidity (NTU)	Flow Rate
11:45								
5min	9.92	11.28	7.56	0.889	-128.4	22.2	8.0	300mL
10min	9.92	11.14	7.57	0.680	-142.0	14.4	2.2	300 mL
15min	9.92	11.32	7.57	0.958	-121.6	19.6	1.8	300 mL
20min	9.92	11.32	7.57	0.960	-132.8	20.0	2.0	300mL
25min	9.92	11.34	7.56	0.962	-134.3	19.8	2.1	300mL/m
30min	9.92	11.32	7.57	0.960	-136.0	20.2		300mL

WATER SAMPLE

Time Collected: 12:20

Characteristics	Physical Appearance At Start	Physical Appearance At Sampling
Color	clear	clear
Odor	NO	NO

Turbidity <100 (NTU)	2.0
Sheen/Free Product	NO

SAMPLES COLLECTED

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH
40 mL	GLASS	3	NO	HCL	

NOTES

ATTACHMENT B-4

SEMI-ANNUAL LEACHATE
AND GROUNDWATER MONITORING
NOVEMBER 2011

TO: Kevin Stone **cc:**

FROM: Karen Storne

RE: PAS Oswego Data Validation Report

FILE: 6363/47121.260.010

DATE: January 16, 2012

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 2011.

The environmental samples, trip blanks, 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/8260B	1

Note:

1. United States Environmental Protection Agency (USEPA). 2004. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846,* 3rd Edition, Update IIIB. 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. 2006a. *USEPA Region II Validating Volatile Organic Compounds by SW-846 Method 8260B, SOP HW-24* Revision 2. New York, NY.

The validation included checking the following parameters:

- Chain-of-custody records and 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

Excursions from quality control criteria and additional observations are summarized below.

I. Chain-of-custody records, sample collection, holding times and sample preservation

The validation criteria for VOC analysis were met.

II. Blank analysis

Trip blank and method blanks were analyzed to evaluate the potential for laboratory-induced concentrations and the integrity of samples during shipment.

Due to a minor blank excursion, the following sample result was qualified as non-detected (U):

- Acetone in sample LR-8.

III. Calibrations

Calibration results met validation criteria.

IV. GC/MS instrument check

GC/MS instrument checks met the validation criteria.

V. Surrogate recoveries

Surrogates results met the validation criteria.

VI. MS/MSD analysis

MS/MSD results met the validation criteria.

VII. LCS analysis

LCS results met the validation criteria.

VIII. Internal standards performance

Internal standard results met the validation criteria.

IX. Field duplicate analysis

Field duplicate results met the validation criteria.

X. Target analyte quantitation, identification 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.

XII. Document completeness

The laboratory deliverables provided for this sampling event were sufficient to complete the validation process.

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	11/7/2011	K1111096-001	M-21	Groundwater	VOCs
Life Science Labs	11/7/2011	K1111096-002	LR-8, MS/MSD	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-003	LR-6	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-004	LCW-2	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-005	LCW-4	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-006	X-1[LR-6]	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-007	QC TRIP BLANKS	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 *Using USEPA Region II Data validation guidelines*	
General Validation Approach	For certain parameters, USEPA guidance for data validation indicates that professional judgment is to be utilized to identify the appropriate validation action. In these situations, the validation approach taken by O'Brien & Gere has been a conservative one; qualifiers have been applied to sample data to indicate both major and minor excursions. In this way, data associated with any type of excursion are identified to the data user. Major excursions resulted in data being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Minor excursions result in sample data being qualified as approximate that are 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, surrogate, and internal standard performance due to matrix 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 control procedures.
Parameter Type	**Applying Data Validation Qualifiers Approach**
Sample collection information-Cooler Temperature	Results for samples submitted for organic and inorganic analyses that are impacted by cooler temperatures of greater than 10°C are qualified as approximate (UJ, J).
Calibration Data-VOCs by USEPA Method 8260B	VOC target analytes are evaluated using the criteria of 15 percent relative standard deviation (%RSD) or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20 percent difference (%D) for the target analytes and a criterion of 50 %D for the remaining target analytes. Initial calibrations and calibration verifications were also evaluated using the response factor (RF) criteria described in the method for system performance check compounds, a criterion of greater than or equal to 0.010 for ketones and alcohols, and a criterion of 0.05 for the remaining target analytes.
Organic Multi-results	When two results are reported, due to re-extraction or for confirmation analyses, both sets of results are evaluated during the validation process. Based on the evaluation of the associated quality control data, the results reflecting the higher quality data are reported.
General Organic and Inorganic MS/MSD, LCS, Laboratory Duplicate Data	Laboratory established control limits are used to assess MS/MSD, LCS, and laboratory duplicate data.
	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.
General Organic MS/MSD, LCS, Laboratory Duplicate Data	If percent recoveries are less than laboratory control limits but greater than ten percent, non-detected and detected results are qualified as approximate (UJ, J) to indicate minor excursions.
	If percent recoveries are greater than laboratory control limits, detected results are qualified as approximate (J) to indicate minor excursions.
	If percent recoveries are less than ten percent, detected results are qualified as approximate (J) and non-detected results are qualified as rejected (R) to indicate major excursions.
	If RPDs for MSDs or laboratory duplicates are outside of laboratory control limits, detected results are qualified as approximate (J) to indicate minor excursions.
Organic MS/MSD Data	Qualification of organic data for MS/MSD analyses is performed only when both MS and MSD percent recoveries are outside of laboratory control limits.
	Organic data are rejected (R) to indicate major excursions in the case that both MS/MSD recoveries are less than ten percent.
	Qualification of data is not performed if MS/MSD or surrogate recoveries are outside of laboratory control limits due to sample dilution.
Organic MS/MSD and Field Duplicate Data	Qualification of data associated with MS/MSD or field duplicate excursions is limited to the un-spiked sample or the field duplicate pair, respectively.
Internal Standard organic Data	Internal standard recoveries are evaluated using control limits of within 50% of the lower standard area and up to 100% of the upper standard area of the associated calibration verification standard. The results for target analytes associated with internal standard area recoveries 25% or greater but less than the lower standard area are qualified as approximate (J, UJ) to indicate minor internal standard recovery excursions. The non-detected results for target analytes associated with internal standard area recoveries less than 25% are rejected (R) to indicate major recovery excursions

Table 2. *Sample cross reference list*

Laboratory	Date Collected	Laboratory ID	Client ID	Matrix	Analysis Requested
Life Science Labs	11/7/2011	K1111096-001	M-21	Groundwater	VOCs
Life Science Labs	11/7/2011	K1111096-002	LR-8, MS/MSD	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-003	LR-6	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-004	LCW-2	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-005	LCW-4	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-006	X-1[LR-6]	Groundwater	VOCs
Life Science Labs	11/8/2011	K1111096-007	QC TRIP BLANKS	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 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.
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	

O'Brien & Gere Data validation approach *Using USEPA Region II Data validation guidelines*	
Field Duplicate Data	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 five times the QL. When sample results for field duplicate pairs are less than five times the QL, the data are evaluated using control limits of plus or minus two times the QL for soils. If RPDs for field duplicates are outside of laboratory control limits, detected and non-detected results are qualified as approximate (UJ, J) to indicate minor excursions.
Organic Blank Data	If methylene chloride, acetone or 2-butanone is 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".
	Results greater than the MDL but less than QL and within the blank action level, are replaced with the QL and qualified as non-detected (U).
	Results greater than the QL are qualified as "U" at that concentration.
	The highest concentrations of the target analytes are used to evaluate the associated samples.
	For calibration blanks, preparation blanks and field blanks at concentrations greater than laboratory QLs: (a) Concentration in the associated samples of greater than the blank concentration and less than ten times the blank concentration are qualified as approximate (J). (b) Concentrations in the associated samples of greater than or equal to the MDLs but less than or equal to QLs are revised to the QL level and are qualified as non-detected (U). (c) Concentration in the associated samples of greater than the QLs and less than the blank concentration are rejected (R).
	For calibration blanks and preparation blanks at concentrations less than the negative value of the QLs: (a) Concentration in the associated samples of less than ten times the QLs are qualified as approximate (J). (b) Non-detected concentrations in the associated samples are qualified as approximate (UJ).
Source O'Brien & Gere	

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

Tuesday, November 29, 2011

Kevin Stone
O'Brien & Gere Inc. of North America
555 E Genesee Street
Fayetteville, NY 13066

TEL: 315-637-2234

Project: PAS OSWEGO SEMI-ANNUAL EFFLUENT
RE: Analytical Results Order No.: K1111101

Dear Kevin Stone:

Life Science Laboratories, Inc. received 1 sample(s) on 11/9/2011 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

Anthony Crescenzi
Project Manager

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

Analytical Results

StateCertNo: 10248

CLIENT O'Brien & Gere Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001A
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (BOD5)			**SM 18-20 5210 B**			
Biochemical oxygen demand (BOD5)	22		4.0	mg/L	1	11/09/11 16:19
LABORATORY (PH)			**SM 18-20 4500-H B**			
pH	6.74		1.00	pH Units	1	11/23/11
RESIDUE-NON-FILTERABLE (TSS)			**SM 18-20 2540 D**			
Residue-non-filterable (TSS)	83		5.0	mg/L	1	11/15/11 14:00

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

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East Syracuse , NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT O'Brien & Gere Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001B
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
PHENOLICS, TOTAL RECOVERABLE			**EPA 420.1**		**(E420.1)**	
Phenolics, Total Recoverable	0.12		0.050	mg/L	10	11/11/11

Qualifiers:

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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

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East Syracuse , NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001C
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
MERCURY			**EPA 245.1**		**(E245.1)**	
Mercury	ND		0.00020	mg/L	1	11/21/11 14:56
TOTAL METALS BY ICP			**EPA 200.7**		**(E200.2)**	
Cadmium	ND		0.010	mg/L	1	11/14/11 12:49
Chromium	0.014		0.010	mg/L	1	11/14/11 12:49
Copper	0.010		0.010	mg/L	1	11/14/11 12:49
Lead	ND		0.010	mg/L	1	11/14/11 12:49
Nickel	0.56		0.010	mg/L	1	11/14/11 12:49
Silver	ND		0.010	mg/L	1	11/14/11 12:49
Zinc	ND		0.020	mg/L	1	11/14/11 12:49

Qualifiers:

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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: 11/23/11 11:12 **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 Inc. of North America
Project: PAS Oswego Semi-Annual Effluent
W Order: K1111101
Matrix: WATER

Lab ID: K1111101-001D
Client Sample ID: *Effluent-Tank*
Collection Date: 11/09/11 10:45
Date Received: 11/09/11 15:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
CYANIDE, TOTAL			**EPA 335.4**		**(E335.4)**	
Cyanide, Total	ND		0.010	mg/L	1	11/15/11

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

K11111 01

Life Sciences Laboratory, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

Chain Of Custody / Analysis Request

AESI Ref:
COC # : WA-
Lab Use Only

Privileged & Confidential
EDD To: Demaximis

Site Name: Former Pollution Abatement Services (PAS Oswego)
Location of Site: 55 East Seneca St. Oswego, NY

Lab Proj #
Lab ID

Client Contact: (name, co., address)
Kevin.Stone@OBG.Com
O'Brien & Gere Operations, LLC (for de maximis Inc.)
7600 Morgan Road
Liverpool, NY 13090

Sampler: Martin Koennecke
P O # On file
Analysis Turnaround Time:
Standard - X
Rush Charges Authorized for -
2 weeks -
1 week -
Next Day -

Hardcopy Report To: See Special Instructions Below
Invoice To: Kevin Stone - OB&G Operations

Job No:

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix			Grab/Composite	Field Filtered Sample ?	Preservative: 1														Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		BOD / TSS / pH	Total Phenols	Cd, Cr, Cu, Fe, Pb, Hg, Ni, Ag, Zn	CN										
1	Effluent Discharge Pump House Sample Port #1			EFFLUENT TANK	11-9-11	1045	Composite ~~Multi-Grab~~	Water			C	N	1	1	1	1										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

Sample Description	pH	Temp (°C)	Flow	Free Chlorine	Notes:

Relinquished by: Martin Koennecke	Company	O'Brien & Gere	Received by:	Company		Condition		Custody Seals Intact	
	Date/Time	11-9-11 / 1505		Date/Time		Cooler Temp.			
Relinquished by	Company		Received by:	Company		Condition		Custody Seals Intact	
	Date/Time			Date/Time	11-9-11 1505	Cooler Temp.	5.0 ImFc		

Preservatives: 0 = None; [1 = HCL]; [2 = HNO3]; [3 = H2SO4]; [4 = NaOH]; [5 = Zn. Acetate]; [6 = MeOH]; [7 = NaHSO4]; 8 = Other (specify):

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OGINA PAS

Date and Time Received: 11/9/2011 3:05:00 PM

Work Order Number: K1111101

Received by: gis

Checklist completed by: GS (Initials) 11-9-11 (Date)

Reviewed by: AC (Initials) 11-5-11 (Date)

Delivery Method: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Applicable ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☑ N ☐ NA ☐		
<2	1:1 HCL	Yes ☐ N ☐ NA ☑		
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

Corrective Action:

1/11/2012
15 pap

Life Science Laboratories, Inc. **Date:** *13-Dec-11*

CLIENT: O'Brien & Gere Operations, LLC
Project: PAS Oswego-Semi-Annual Well Sampling
Lab Order: K1111096

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
K1111096-001A	M-21		11/7/2011	11/8/2011
K1111096-002A	LR-8		11/7/2011	11/8/2011
K1111096-003A	LR-6		11/8/2011	11/8/2011
K1111096-004A	LCW-2		11/8/2011	11/8/2011
K1111096-005A	LCW-4		11/8/2011	11/8/2011
K1111096-006A	X-1 [LR-6]		11/8/2011	11/8/2011
K1111096-007A	QC Trip Blanks		11/7/2011	11/8/2011

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Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Inc. of North America	**Lab ID:**	**K1111096-001A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21*
W Order:	K1111096	**Collection Date:**	11/07/11 12:20
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R23096
Revision:	11/30/11 15:08	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-K6694.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 11:23
Chloromethane	ND		1.00	0.33	µg/L	1	11/11/11 11:23
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/11/11 11:23
Bromomethane	ND		1.00	0.33	µg/L	1	11/11/11 11:23
Chloroethane	0.67	J	1.00	0.33	µg/L	1	11/11/11 11:23
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 11:23
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/11/11 11:23
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Acetone	ND		10.0	1.00	µg/L	1	11/11/11 11:23
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/11/11 11:23
Methyl acetate	ND		5.00	1.00	µg/L	1	11/11/11 11:23
Methylene chloride	ND		2.00	0.16	µg/L	1	11/11/11 11:23
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/11/11 11:23
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
2-Butanone	ND		10.0	1.00	µg/L	1	11/11/11 11:23
Chloroform	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Cyclohexane	0.30	J	0.50	0.10	µg/L	1	11/11/11 11:23
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Benzene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 11:23
Trichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/11/11 11:23
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 11:23
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/11/11 11:23
Toluene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 11:23
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 11:23
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
2-Hexanone	ND		5.00	1.00	µg/L	1	11/11/11 11:23

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: 12/05/11 15:10 583667 **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 Inc. of North America	**Lab ID:**	K1111096-001A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*M-21*
W Order:	K1111096	**Collection Date:**	11/07/11 12:20
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R23096
Revision:	11/30/11 15:08	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-K6694.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260B		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/11/11 11:23
Chlorobenzene	1.77		0.50	0.10	µg/L	1	11/11/11 11:23
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/11/11 11:23
Styrene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
Bromoform	ND		1.00	0.33	µg/L	1	11/11/11 11:23
Isopropylbenzene	0.32	J	0.50	0.10	µg/L	1	11/11/11 11:23
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 11:23
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/11/11 11:23
1,2-Dichlorobenzene	0.18	J	0.50	0.10	µg/L	1	11/11/11 11:23
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/11/11 11:23
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	11/11/11 11:23
Surr: 1,2-Dichloroethane-d4	107		75-128	0.16	%REC	1	11/11/11 11:23
Surr: Toluene-d8	106		75-125	0.10	%REC	1	11/11/11 11:23
Surr: 4-Bromofluorobenzene	115		75-125	0.10	%REC	1	11/11/11 11:23

Qualifiers:				
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	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: 12/05/11 15:10 583667 **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 Inc. of North America	**Lab ID:**	K1111096-002A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-8*
W Order:	K1111096	**Collection Date:**	11/07/11 14:15
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6695.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 11:55
Chloromethane	ND		1.00	0.33	µg/L	1	11/11/11 11:55
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/11/11 11:55
Bromomethane	ND		1.00	0.33	µg/L	1	11/11/11 11:55
Chloroethane	8.24		1.00	0.33	µg/L	1	11/11/11 11:55
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 11:55
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/11/11 11:55
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:55
Acetone	10U ~~2.20 J~~		10.0	1.00	µg/L	1	11/11/11 11:55
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/11/11 11:55
Methyl acetate	ND		5.00	1.00	µg/L	1	11/11/11 11:55
Methylene chloride	ND		2.00	0.16	µg/L	1	11/11/11 11:55
trans-1,2-Dichloroethene	0.16	(J)	0.50	0.10	µg/L	1	11/11/11 11:55
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/11/11 11:55
1,1-Dichloroethane	0.90		0.50	0.10	µg/L	1	11/11/11 11:55
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:55
2-Butanone	ND		10.0	1.00	µg/L	1	11/11/11 11:55
Chloroform	0.18	(J)	0.50	0.10	µg/L	1	11/11/11 11:55
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:55
Cyclohexane	3.65		0.50	0.10	µg/L	1	11/11/11 11:55
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	11/11/11 11:55
Benzene	5.88		0.50	0.10	µg/L	1	11/11/11 11:55
1,2-Dichloroethane	0.18	(J)	0.50	0.16	µg/L	1	11/11/11 11:55
Trichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:55
Methylcyclohexane	0.41	(J)	0.50	0.10	µg/L	1	11/11/11 11:55
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/11/11 11:55
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/11/11 11:55
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 11:55
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/11/11 11:55
Toluene	0.88		0.50	0.10	µg/L	1	11/11/11 11:55
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 11:55
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 11:55
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/11/11 11:55
2-Hexanone	ND		5.00	1.00	µg/L	1	11/11/11 11:55

Qualifiers:

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J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
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Print Date: 12/05/11 15:10 583668 **Project Supervisor:** Anthony Crescenzi

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

Analytical Results

StateCertNo: 10248

CLIENT	O'Brien & Gere Inc. of North America	**Lab ID:**	**K1111096-002A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	***LR-8***
W Order:	K1111096	**Collection Date:**	11/07/11 14:15
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R23096
Revision:	11/30/11 15:08	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-K6695.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/11/11 11:55
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/11/11 11:55
Chlorobenzene	18.3		0.50	0.10	µg/L	1	11/11/11 11:55
Ethylbenzene	0.14	J	0.50	0.10	µg/L	1	11/11/11 11:55
Xylenes (total)	0.36	J	1.00	0.30	µg/L	1	11/11/11 11:55
Styrene	ND		0.50	0.10	µg/L	1	11/11/11 11:55
Bromoform	ND		1.00	0.33	µg/L	1	11/11/11 11:55
Isopropylbenzene	3.38		0.50	0.10	µg/L	1	11/11/11 11:55
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/11/11 11:55
1,3-Dichlorobenzene	0.15	J	0.50	0.10	µg/L	1	11/11/11 11:55
1,4-Dichlorobenzene	1.08		0.50	0.16	µg/L	1	11/11/11 11:55
1,2-Dichlorobenzene	1.71		0.50	0.10	µg/L	1	11/11/11 11:55
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/11/11 11:55
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	11/11/11 11:55
Surr: 1,2-Dichloroethane-d4	103		75-128	0.16	%REC	1	11/11/11 11:55
Surr: Toluene-d8	105		75-125	0.10	%REC	1	11/11/11 11:55
Surr: 4-Bromofluorobenzene	116		75-125	0.10	%REC	1	11/11/11 11:55

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: 12/05/11 15:10 583668 **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 Inc. of North America	**Lab ID:**	**K1111096-003A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-6*
W Order:	K1111096	**Collection Date:**	11/08/11 9:20
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6696.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 12:27
Chloromethane	ND		1.00	0.33	µg/L	1	11/11/11 12:27
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/11/11 12:27
Bromomethane	ND		1.00	0.33	µg/L	1	11/11/11 12:27
Chloroethane	ND		1.00	0.33	µg/L	1	11/11/11 12:27
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 12:27
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/11/11 12:27
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Acetone	ND		10.0	1.00	µg/L	1	11/11/11 12:27
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/11/11 12:27
Methyl acetate	ND		5.00	1.00	µg/L	1	11/11/11 12:27
Methylene chloride	ND		2.00	0.16	µg/L	1	11/11/11 12:27
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/11/11 12:27
1,1-Dichloroethane	2.55		0.50	0.10	µg/L	1	11/11/11 12:27
cis-1,2-Dichloroethene	0.13	J	0.50	0.10	µg/L	1	11/11/11 12:27
2-Butanone	ND		10.0	1.00	µg/L	1	11/11/11 12:27
Chloroform	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Cyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Benzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 12:27
Trichloroethene	0.20	J	0.50	0.10	µg/L	1	11/11/11 12:27
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/11/11 12:27
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 12:27
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/11/11 12:27
Toluene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 12:27
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 12:27
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
2-Hexanone	ND		5.00	1.00	µg/L	1	11/11/11 12:27

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: 12/05/11 15:10 583669 **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 Inc. of North America	**Lab ID:**	K1111096-003A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LR-6*
W Order:	K1111096	**Collection Date:**	11/08/11 9:20
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R23096
Revision:	11/30/11 15:08	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-K6696.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/11/11 12:27
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/11/11 12:27
Styrene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
Bromoform	ND		1.00	0.33	µg/L	1	11/11/11 12:27
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/11/11 12:27
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:27
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/11/11 12:27
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	11/11/11 12:27
Surr: 1,2-Dichloroethane-d4	103		75-128	0.16	%REC	1	11/11/11 12:27
Surr: Toluene-d8	107		75-125	0.10	%REC	1	11/11/11 12:27
Surr: 4-Bromofluorobenzene	118		75-125	0.10	%REC	1	11/11/11 12:27

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: 12/05/11 15:10 583669 **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 Inc. of North America	**Lab ID:**	K1111096-004A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2*
W Order:	K1111096	**Collection Date:**	11/08/11 10:35
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6692.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		5.00	0.50	µg/L	5	11/11/11 10:19
Chloromethane	ND		5.00	1.65	µg/L	5	11/11/11 10:19
Vinyl chloride	39.5		5.00	1.65	µg/L	5	11/11/11 10:19
Bromomethane	ND		5.00	1.65	µg/L	5	11/11/11 10:19
Chloroethane	4.45	J	5.00	1.65	µg/L	5	11/11/11 10:19
Trichlorofluoromethane	ND		5.00	0.50	µg/L	5	11/11/11 10:19
1,1-Dichloroethene	ND		2.50	0.80	µg/L	5	11/11/11 10:19
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.50	0.50	µg/L	5	11/11/11 10:19
Acetone	ND		50.0	5.00	µg/L	5	11/11/11 10:19
Carbon disulfide	ND		2.50	0.55	µg/L	5	11/11/11 10:19
Methyl acetate	ND		25.0	5.00	µg/L	5	11/11/11 10:19
Methylene chloride	ND		10.0	0.80	µg/L	5	11/11/11 10:19
trans-1,2-Dichloroethene	1.85	J	2.50	0.50	µg/L	5	11/11/11 10:19
Methyl tert-butyl ether	ND		5.00	0.80	µg/L	5	11/11/11 10:19
1,1-Dichloroethane	24.5		2.50	0.50	µg/L	5	11/11/11 10:19
cis-1,2-Dichloroethene	75.1		2.50	0.50	µg/L	5	11/11/11 10:19
2-Butanone	ND		50.0	5.00	µg/L	5	11/11/11 10:19
Chloroform	2.10	J	2.50	0.50	µg/L	5	11/11/11 10:19
1,1,1-Trichloroethane	6.30		2.50	0.50	µg/L	5	11/11/11 10:19
Cyclohexane	1.25	J	2.50	0.50	µg/L	5	11/11/11 10:19
Carbon tetrachloride	ND		2.50	0.50	µg/L	5	11/11/11 10:19
Benzene	193		2.50	0.50	µg/L	5	11/11/11 10:19
1,2-Dichloroethane	1.25	J	2.50	0.80	µg/L	5	11/11/11 10:19
Trichloroethene	4.85		2.50	0.50	µg/L	5	11/11/11 10:19
Methylcyclohexane	ND		2.50	0.50	µg/L	5	11/11/11 10:19
1,2-Dichloropropane	ND		2.50	0.80	µg/L	5	11/11/11 10:19
Bromodichloromethane	ND		2.50	0.50	µg/L	5	11/11/11 10:19
cis-1,3-Dichloropropene	ND		2.50	0.80	µg/L	5	11/11/11 10:19
4-Methyl-2-pentanone	ND		25.0	5.00	µg/L	5	11/11/11 10:19
Toluene	2.15	J	2.50	0.50	µg/L	5	11/11/11 10:19
trans-1,3-Dichloropropene	ND		2.50	0.80	µg/L	5	11/11/11 10:19
1,1,2-Trichloroethane	1.00	J	2.50	0.80	µg/L	5	11/11/11 10:19
Tetrachloroethene	2.60		2.50	0.50	µg/L	5	11/11/11 10:19
2-Hexanone	ND		25.0	5.00	µg/L	5	11/11/11 10:19

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: 12/05/11 15:10 583665 **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 Inc. of North America	**Lab ID:**	K1111096-004A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-2*
W Order:	K1111096	**Collection Date:**	11/08/11 10:35
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75	**Sample Size** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R23096
Revision:	11/30/11 15:08	**TestCode:** 8260W_OLM42	**FileID:** 1-SAMP-K6692.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dibromochloromethane	ND		2.50	0.50	µg/L	5	11/11/11 10:19
1,2-Dibromoethane	ND		2.50	0.80	µg/L	5	11/11/11 10:19
Chlorobenzene	63.6		2.50	0.50	µg/L	5	11/11/11 10:19
Ethylbenzene	44.5		2.50	0.50	µg/L	5	11/11/11 10:19
Xylenes (total)	18.3		5.00	1.50	µg/L	5	11/11/11 10:19
Styrene	ND		2.50	0.50	µg/L	5	11/11/11 10:19
Bromoform	ND		5.00	1.65	µg/L	5	11/11/11 10:19
Isopropylbenzene	5.60		2.50	0.50	µg/L	5	11/11/11 10:19
1,1,2,2-Tetrachloroethane	8.35		2.50	0.50	µg/L	5	11/11/11 10:19
1,3-Dichlorobenzene	0.50	J	2.50	0.50	µg/L	5	11/11/11 10:19
1,4-Dichlorobenzene	1.25	J	2.50	0.80	µg/L	5	11/11/11 10:19
1,2-Dichlorobenzene	6.35		2.50	0.50	µg/L	5	11/11/11 10:19
1,2-Dibromo-3-chloropropane	ND		25.0	5.00	µg/L	5	11/11/11 10:19
1,2,4-Trichlorobenzene	ND		5.00	0.50	µg/L	5	11/11/11 10:19
Surr: 1,2-Dichloroethane-d4	100		75-128	0.80	%REC	5	11/11/11 10:19
Surr: Toluene-d8	106		75-125	0.50	%REC	5	11/11/11 10:19
Surr: 4-Bromofluorobenzene	114		75-125	0.50	%REC	5	11/11/11 10:19

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: 12/05/11 15:10 583665 **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 Inc. of North America	**Lab ID:**	K1111096-005A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-4*
W Order:	K1111096	**Collection Date:**	11/08/11 12:00
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6693.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		20.0	2.00	µg/L	20	11/11/11 10:51
Chloromethane	ND		20.0	6.60	µg/L	20	11/11/11 10:51
Vinyl chloride	ND		20.0	6.60	µg/L	20	11/11/11 10:51
Bromomethane	ND		20.0	6.60	µg/L	20	11/11/11 10:51
Chloroethane	71.8		20.0	6.60	µg/L	20	11/11/11 10:51
Trichlorofluoromethane	ND		20.0	2.00	µg/L	20	11/11/11 10:51
1,1-Dichloroethene	ND		10.0	3.20	µg/L	20	11/11/11 10:51
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Acetone	ND		200	20.0	µg/L	20	11/11/11 10:51
Carbon disulfide	ND		10.0	2.20	µg/L	20	11/11/11 10:51
Methyl acetate	ND		100	20.0	µg/L	20	11/11/11 10:51
Methylene chloride	ND		40.0	3.20	µg/L	20	11/11/11 10:51
trans-1,2-Dichloroethene	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Methyl tert-butyl ether	ND		20.0	3.20	µg/L	20	11/11/11 10:51
1,1-Dichloroethane	7.60	J	10.0	2.00	µg/L	20	11/11/11 10:51
cis-1,2-Dichloroethene	7.00	J	10.0	2.00	µg/L	20	11/11/11 10:51
2-Butanone	ND		200	20.0	µg/L	20	11/11/11 10:51
Chloroform	ND		10.0	2.00	µg/L	20	11/11/11 10:51
1,1,1-Trichloroethane	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Cyclohexane	8.60	J	10.0	2.00	µg/L	20	11/11/11 10:51
Carbon tetrachloride	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Benzene	386		10.0	2.00	µg/L	20	11/11/11 10:51
1,2-Dichloroethane	ND		10.0	3.20	µg/L	20	11/11/11 10:51
Trichloroethene	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Methylcyclohexane	2.20	J	10.0	2.00	µg/L	20	11/11/11 10:51
1,2-Dichloropropane	ND		10.0	3.20	µg/L	20	11/11/11 10:51
Bromodichloromethane	ND		10.0	2.00	µg/L	20	11/11/11 10:51
cis-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/11/11 10:51
4-Methyl-2-pentanone	ND		100	20.0	µg/L	20	11/11/11 10:51
Toluene	57.0		10.0	2.00	µg/L	20	11/11/11 10:51
trans-1,3-Dichloropropene	ND		10.0	3.20	µg/L	20	11/11/11 10:51
1,1,2-Trichloroethane	ND		10.0	3.20	µg/L	20	11/11/11 10:51
Tetrachloroethene	ND		10.0	2.00	µg/L	20	11/11/11 10:51
2-Hexanone	ND		100	20.0	µg/L	20	11/11/11 10:51

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: 12/05/11 15:10 583666 **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 Inc. of North America	**Lab ID:**	K1111096-005A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*LCW-4*
W Order:	K1111096	**Collection Date:**	11/08/11 12:00
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6693.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dibromochloromethane	ND		10.0	2.00	µg/L	20	11/11/11 10:51
1,2-Dibromoethane	ND		10.0	3.20	µg/L	20	11/11/11 10:51
Chlorobenzene	278		10.0	2.00	µg/L	20	11/11/11 10:51
Ethylbenzene	161		10.0	2.00	µg/L	20	11/11/11 10:51
Xylenes (total)	972		20.0	6.00	µg/L	20	11/11/11 10:51
Styrene	ND		10.0	2.00	µg/L	20	11/11/11 10:51
Bromoform	ND		20.0	6.60	µg/L	20	11/11/11 10:51
Isopropylbenzene	5.60	J	10.0	2.00	µg/L	20	11/11/11 10:51
1,1,2,2-Tetrachloroethane	ND		10.0	2.00	µg/L	20	11/11/11 10:51
1,3-Dichlorobenzene	ND		10.0	2.00	µg/L	20	11/11/11 10:51
1,4-Dichlorobenzene	4.20	J	10.0	3.20	µg/L	20	11/11/11 10:51
1,2-Dichlorobenzene	39.4		10.0	2.00	µg/L	20	11/11/11 10:51
1,2-Dibromo-3-chloropropane	ND		100	20.0	µg/L	20	11/11/11 10:51
1,2,4-Trichlorobenzene	ND		20.0	2.00	µg/L	20	11/11/11 10:51
Surr: 1,2-Dichloroethane-d4	102		75-128	3.20	%REC	20	11/11/11 10:51
Surr: Toluene-d8	108		75-125	2.00	%REC	20	11/11/11 10:51
Surr: 4-Bromofluorobenzene	114		75-125	2.00	%REC	20	11/11/11 10:51

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: 12/05/11 15:10 583666 **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 Inc. of North America	**Lab ID:**	K1111096-006A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*X-1*
W Order:	K1111096	**Collection Date:**	11/08/11 0:00
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6697.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 12:59
Chloromethane	ND		1.00	0.33	µg/L	1	11/11/11 12:59
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/11/11 12:59
Bromomethane	ND		1.00	0.33	µg/L	1	11/11/11 12:59
Chloroethane	ND		1.00	0.33	µg/L	1	11/11/11 12:59
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 12:59
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/11/11 12:59
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Acetone	ND		10.0	1.00	µg/L	1	11/11/11 12:59
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/11/11 12:59
Methyl acetate	ND		5.00	1.00	µg/L	1	11/11/11 12:59
Methylene chloride	ND		2.00	0.16	µg/L	1	11/11/11 12:59
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/11/11 12:59
1,1-Dichloroethane	2.54		0.50	0.10	µg/L	1	11/11/11 12:59
cis-1,2-Dichloroethene	0.11	J	0.50	0.10	µg/L	1	11/11/11 12:59
2-Butanone	ND		10.0	1.00	µg/L	1	11/11/11 12:59
Chloroform	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Cyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Benzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 12:59
Trichloroethene	0.21	J	0.50	0.10	µg/L	1	11/11/11 12:59
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/11/11 12:59
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 12:59
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/11/11 12:59
Toluene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 12:59
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 12:59
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
2-Hexanone	ND		5.00	1.00	µg/L	1	11/11/11 12:59

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: 12/05/11 15:10 583670 **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 Inc. of North America	**Lab ID:**	**K1111096-006A**
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*X-1*
W Order:	K1111096	**Collection Date:**	11/08/11 0:00
Matrix:	WATER	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6697.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8260B		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/11/11 12:59
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/11/11 12:59
Styrene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
Bromoform	ND		1.00	0.33	µg/L	1	11/11/11 12:59
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/11/11 12:59
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 12:59
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/11/11 12:59
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	11/11/11 12:59
Surr: 1,2-Dichloroethane-d4	106		75-128	0.16	%REC	1	11/11/11 12:59
Surr: Toluene-d8	107		75-125	0.10	%REC	1	11/11/11 12:59
Surr: 4-Bromofluorobenzene	118		75-125	0.10	%REC	1	11/11/11 12:59

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: 12/05/11 15:10 583670 **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 Inc. of North America	**Lab ID:**	K1111096-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*QC Trip Blanks*
W Order:	K1111096	**Collection Date:**	11/07/11 0:00
Matrix:	WATER Q	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6698.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dichlorodifluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 13:31
Chloromethane	ND		1.00	0.33	µg/L	1	11/11/11 13:31
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/11/11 13:31
Bromomethane	ND		1.00	0.33	µg/L	1	11/11/11 13:31
Chloroethane	ND		1.00	0.33	µg/L	1	11/11/11 13:31
Trichlorofluoromethane	ND		1.00	0.10	µg/L	1	11/11/11 13:31
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/11/11 13:31
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Acetone	1.16	J	10.0	1.00	µg/L	1	11/11/11 13:31
Carbon disulfide	ND		0.50	0.11	µg/L	1	11/11/11 13:31
Methyl acetate	ND		5.00	1.00	µg/L	1	11/11/11 13:31
Methylene chloride	ND		2.00	0.16	µg/L	1	11/11/11 13:31
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Methyl tert-butyl ether	ND		1.00	0.16	µg/L	1	11/11/11 13:31
1,1-Dichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
cis-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
2-Butanone	ND		10.0	1.00	µg/L	1	11/11/11 13:31
Chloroform	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Cyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Carbon tetrachloride	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Benzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,2-Dichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 13:31
Trichloroethene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Methylcyclohexane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,2-Dichloropropane	ND		0.50	0.16	µg/L	1	11/11/11 13:31
Bromodichloromethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
cis-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 13:31
4-Methyl-2-pentanone	ND		5.00	1.00	µg/L	1	11/11/11 13:31
Toluene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
trans-1,3-Dichloropropene	ND		0.50	0.16	µg/L	1	11/11/11 13:31
1,1,2-Trichloroethane	ND		0.50	0.16	µg/L	1	11/11/11 13:31
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
2-Hexanone	ND		5.00	1.00	µg/L	1	11/11/11 13:31

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: 12/05/11 15:10 583671 **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 Inc. of North America	**Lab ID:**	K1111096-007A
Project:	PAS Oswego-Semi-Annual Well Sampling	**Client Sample ID:**	*QC Trip Blanks*
W Order:	K1111096	**Collection Date:**	11/07/11 0:00
Matrix:	WATER Q	**Date Received:**	11/08/11 14:30
Inst. ID:	MSK_75 **Sample Size** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R23096
Revision:	11/30/11 15:08 **TestCode:** 8260W_OLM42	**FileID:**	1-SAMP-K6698.D
Col Type:			

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					**SW8260B**		
Dibromochloromethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,2-Dibromoethane	ND		0.50	0.16	µg/L	1	11/11/11 13:31
Chlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Ethylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Xylenes (total)	ND		1.00	0.30	µg/L	1	11/11/11 13:31
Styrene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
Bromoform	ND		1.00	0.33	µg/L	1	11/11/11 13:31
Isopropylbenzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,3-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,4-Dichlorobenzene	ND		0.50	0.16	µg/L	1	11/11/11 13:31
1,2-Dichlorobenzene	ND		0.50	0.10	µg/L	1	11/11/11 13:31
1,2-Dibromo-3-chloropropane	ND		5.00	1.00	µg/L	1	11/11/11 13:31
1,2,4-Trichlorobenzene	ND		1.00	0.10	µg/L	1	11/11/11 13:31
Surr: 1,2-Dichloroethane-d4	109		75-128	0.16	%REC	1	11/11/11 13:31
Surr: Toluene-d8	106		75-125	0.10	%REC	1	11/11/11 13:31
Surr: 4-Bromofluorobenzene	120		75-125	0.10	%REC	1	11/11/11 13:31

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: 12/05/11 15:10 583671 **Project Supervisor:** Anthony Crescenzi

ATTACHMENT B-5

INSTITUTIONAL CONTROLS CERTIFICATION

MEMORANDUM

PAS OSWEGO SUPERFUND SITE

Institutional Controls Implementation Plan
Annual Certification
July 15, 2012

REQUIREMENT: The Institutional Control Implementation Plan (ICIP) for the PAS Oswego Superfund 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 8, 2012. 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.