GROUNDWATER PERFORMANCE MONITORING REPORT

June 2015 Sampling

ROTH BROS. SMELTING CORP.
CORRECTIVE ACTION MANAGEMENT UNIT (CAMU)

Prepared For:
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1.0 INTRODUCTION

This report presents the results of the June 2015 groundwater monitoring performed at the Corrective Action Management Unit (CAMU) located at the former Wabash Aluminum Alloys, LLC (Wabash) facility located at 6223 Thompson Road, East Syracuse, Onondaga County, New York (Site). The Plant #2 portion of the site is now owned by Metalico Syracuse Realty, Inc. (MSR), and Thompson Corners, LLC owns the Plant #1 portion of the Site.

Metalico Aluminum Recovery, Inc. (MARI) currently operates a scrap metal recycling facility and a secondary aluminum smelting operation at the MSR portion of the site. By agreement with Wabash, MARI assumed "Wabash's obligations to conduct ongoing environmental monitoring and testing at the Site" under a Consent Order with the New York State Department of Environmental Conservation (NYSDEC) that was entered into by Roth Bros. Smelting Corp. (Index # C7-0001-94-10), the owner of the Site at the time the CAMU was constructed. To satisfy this contractual obligation, MARI retained Barton & Loguidice, D.P.C., to prepare this report.

This report has been prepared in accordance with the site Operations and Maintenance Plan (Malcolm Pirnie, 1997) and the subsequent Sampling & Analysis Plan revisions [Appendix D to the Operations and Maintenance Plan] as a result of letter correspondence with NYSDEC in 2002, and the approval letter from NYSDEC in April 2011.

Samples were collected from eight (8) monitoring well locations on June 26, 2015. All samples were collected by personnel from Barton & Loguidice, D.P.C. (B&L) and were submitted to and analyzed by ALS Environmental (ALS) in Rochester, New York.

Figure 1 shows the location of the Plant #1 and Plant #2 properties. The asphalt-paved CAMU area is located north of Plant #2. The monitoring locations associated with the CAMU groundwater performance monitoring, are included on Figure 1.

Groundwater sampling was performed on a quarterly basis prior to June 2005 after which semi-annual monitoring was performed through 2010. Beginning with the June 2011 monitoring event, sampling is now performed on an annual basis in June of each year. This report addresses the data generated from the June 2015 monitoring.

2.0 CAMU GROUNDWATER PERFORMANCE MONITORING

2.1 Monitoring Well Inspection

The following monitoring wells are sampled as part of the CAMU Groundwater Monitoring Performance Program (see Figure 1):

B291	B281	B290	B401
B402R	B403	B404	MW-8R

Over the course of time, several CAMU monitoring wells have been inadvertently damaged, destroyed, or needed maintenance including:

- Monitoring well B280, formerly located north of the CAMU, was destroyed in September 2000. Based on its adjacent location, monitoring well B291 replaced monitoring well B280.
- Between the June 2004 and September 2004 sampling events, monitoring well B402 was destroyed. Monitoring well B402R was installed in November 2005 and began to be sampled for the December 2005 sampling event. The destroyed well (B402) was properly decommissioned using a rotary drilling rig on April 24, 2007.
- Monitoring well MW-8, installed as part of the 2001 Groundwater Investigation, was destroyed during construction of scrap yard improvements. Subsequently, monitoring well MW-8R was installed adjacent to the MW-8 location for inclusion in the CAMU Groundwater Performance Monitoring Program. The wellhead for monitoring well MW-8R was replaced on April 24, 2007 due to deterioration as the flush mounted well was set in a high traffic working area.
- On April 24, 2007 the area surrounding well B291 was cleared of vegetation, and the existing damaged flush-mounted well cover was removed and replaced with a stick-up-type protective casing installed in a concrete base. The wellhead was vertically surveyed relative to well B402R, with the new reference elevation being calculated at 410.86. A new, lockable well plug was installed in the well opening.
- In an effort to avoid further well damage or loss prior to the December 2008 sampling event, all of the facility monitoring wells were painted, labeled and affixed with pole extensions and flagging. The wells were also fitted with new keyed alike locks. It was also noted that all the wells had old deteriorating polyethylene tubing dedicated to each well which is not a standard field sampling practice. All of the old tubing was removed from the wells and disposed of. New tubing for each well is now utilized during each round of sampling and then removed and disposed of properly when sampling is completed.
- In late 2012 the drainage swale piping enclosure along the east side of the CAMU was extended. The extension of this enclosure eliminated access to the open surface water and sediment monitoring locations.

All of the required CAMU monitoring wells were sampled in June 2015.

2.2 Groundwater Monitoring Work

This section describes the field and laboratory procedures that were followed during this monitoring event. Table 1 provides a summary of the sampling frequency and the analytical parameters for each monitoring well for the CAMU groundwater monitoring program that began in 1998.

(a) Groundwater Contour Map

Prior to the sampling of the groundwater monitoring wells, the static water level of each monitoring well was measured. This work was performed using an electronic water level sensor capable of measuring to an accuracy of +/- 0.01 foot. The water level probe was decontaminated between wells by washing in an Alconox/water solution and rinsing with distilled water.

Figure 1 presents a groundwater contour map that reflects the water level data, which is set forth in Table 2. Table 2 also includes historical water level data for prior groundwater sampling events.

The contour map indicates that the general groundwater flow direction at the Site is to the northeast toward the South Branch of Ley Creek. This finding is consistent with historical groundwater contour data.

(b) Groundwater Sampling & Analysis

Each of the monitoring wells was purged prior to sampling. Water surface elevations and field parameters (pH and Specific Conductance) were measured after purging and immediately prior to sample collection.

Purging of monitoring wells was performed with disposable bailers until a minimum of three (3) well volumes were removed or until the well went dry. After the monitoring wells were allowed to recharge overnight groundwater samples were collected using a low-flow peristaltic pump with new non-dedicated tubing at each location.

Collected samples were placed into clean coolers and kept on ice at 4°C until delivery to ALS Environmental.

Appendix A includes the field sampling data sheets and chain of custody records associated with this round of sampling.

(c) Monitoring Results

Table 3 provides an historical summary of the analytical groundwater data for this project, including the results of the June 2015 groundwater monitoring. Appendix B contains the analytical laboratory reports prepared by ALS Environmental (NYSDOH Laboratory I.D. # 10145). Data are highlighted, as appropriate, to indicate detected concentrations that exceed the following NYSDEC Class GA Groundwater Standards:

Parameter	Class GA Standard
pH	6.5 – 8.5 Std. Units
Lead	0.025 mg/L
Arsenic	0.025 mg/L
Aroclor 1016	0.09 ug/L*
Aroclor 1221	0.09 ug/L*
Aroclor 1232	0.09 ug/L*
Aroclor 1242	0.09 ug/L*
Aroclor 1248	0.09 ug/L*
Aroclor 1254	0.09 ug/L*
Aroclor 1260	0.09 ug/L*
Aroclor 1262	0.09 ug/L*
Aroclor 1268	0.09 ug/L*

Notes: *Limit applies to sum of all Aroclors

The results of the June 2015 sampling event indicate that the groundwater quality conditions at the CAMU have remained generally consistent since the last monitoring event and appear to correspond with historical groundwater quality data. The following sections summarize the analytical data collected during this sampling event:

pH – The Class GA standard for pH was not exceeded within any monitoring location.

PCBs – During the June 2015 monitoring event MW-8R exceeded the NYSDEC Class GA groundwater standard for Aroclor 1254 with a concentration of 620 ug/L which is approximately two orders of magnitude greater than the average historical result and viewed as erroneous. Confirmatory re-sampling of PCBs within monitoring well MW-8R took place September 2015. The September results exhibited detections of Aroclor 1248 (1.1 ug/L) and Aroclor 1254 (6.4 ug/L) at concentrations consistent with historical results. The June 2015 result appears to be erroneous and does not appear to represent groundwater concentrations within the well. It is recommended that the June 2015 PCB results be removed from the historical data base. The September Aroclor 1248 detection was additionally qualified with "P" indicating the difference between the two columns was greater than 40 percent, further quantifying the laboratory's difficulty with data replication under QC guidelines.

It should be noted that MW-8R is located upgradient of the CAMU. No other PCB detections were reported for the June 2015 monitoring event.

Specific Conductivity – Monitoring location MW-8R continued to exhibit elevated specific conductivity result during the 2015 monitoring event. No Class GA standard for specific conductivity is currently established. Salts used in the processes at the plant are stockpiled in a storage bay immediately adjacent to flush mounted MW-8R monitoring well. It is suspected that surface contamination is likely infiltrating the flush mounted well in the high traffic area resulting in elevated conductivity readings. The surface seal and well cover should be replaced at this monitoring well. Alternatively, consideration should be given that this well be pressure

grouted and decommissioned to prevent further influence from operational surface contamination. Again, MW-8R is upgradient from the CAMU and not needed as a monitoring well.

Total & Dissolved Lead – Total and dissolved lead were not detected within any monitoring wells during the June 2015 monitoring event.

Total & Dissolved Arsenic – The Class GA standard of 0.025 mg/L for arsenic was not exceeded within any monitoring wells during the June 2015 monitoring event. Total arsenic was detected within monitoring well B-402R at a concentration (0.010 mg/L) below the Class GA standard. No arsenic was detected within any of the remaining monitoring wells during the June 2015 sampling event.

Figures

JUNE 2015
GROUNDWATER CONTOUR MAP

METALICO ALUMINUM RECOVERY, INC.
FACILITY NO. 7102372

ONONDAGA COUNTY, NEW YORK

EAST SYRACUSE

N

MIDLER PARK DRIVE

JOHN & M. SUSAN SCHNEID
BOOK 3178 OF DEEDS, PAGE 338

G. & R. PROPERTIES, LLC
BOOK 4377 OF DEEDS, PAGE 124

ONONDAGA SUBDIVISION CO., INC.
BOOK 1869 OF DEEDS, PAGE 5254

CONSOLIDATED RAIL CORPORATION

NIAGARA MOHAWK POWER CORPORATION

B-281 (417.77)

MW-8R (412.62)

B-401 (406.94)

B-291 (403.27)

B-404 (405.14)

B-402R (406.24)

B-403 (407.61)

B-290 (409.53)

417 416 415 414 413 412 411 410 409 408 407 406 405 404

MAIN BUILDING

EXISTING BUILDING AREA = 106,208 SQ. FT.

SCRAP METAL STORAGE

CAMU AREA

CONCRETE

DRIVING LANE

PROPANE STORAGE BUILDING

PARCEL NO 2
METALICO SYRACUSE REALTY, Inc.

AREA = 22.405± ACRES

350'± PROPOSED LANDSCAPE EASEMENT

PLANT NO. 1 EXISTING BUILDING

WRE PROPERTIES, LLC
BOOK 4331 OF DEEDS, PAGE 287

RUPP RENTAL & SALES CORP
BOOK 2751 OF DEEDS, PAGE 57

PARCEL NO. 3
WABASH ALUMINUM ALLOYS
AREA = 0.605± ACRE

ROTH BROTHERS

CNY SANDTRAP, LLC
BOOK 4838 OF DEEDS, PAGE 204

LEGEND:

- PROPERTY LINE
- 408 GROUNDWATER CONTOUR
- PAVED CAMU AREA
- GROUNDWATER MONITORING WELL
- SURFACE WATER/SEDIMENT MONITORING LOCATION

125' 0 125'
1"=125'

Barton & Loguidice, D.P.C.

Date	SEPTEMBER 2015
Scale	1" = 125'
Figure Number	1
Project Number	1206.002

Plotted: Sep 08, 2015 - 1:21PM SYR By: jgs2
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Tables

Table 1
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Monitoring Schedule

Sampling Frequency	Parameter	Analytical Method	MDL	Well Location
Annual (June)	Arsenic (Total and Dissolved)	EPA Method 6010	3 ug/L	B281
	Lead (Total and Dissolved)		5 ug/L	B290
	PCB's	EPA Method 8082	0.050 ug/L	B291
				B401
				B402R
				B403
				B404
				MW-8R

Table 2
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Groundwater Elevation Summary Table

Monitoring Well	B281		B290		B291		B401	
WELL DEPTH (FT):	13.03		10.26		12.54		13.03	
REFERNCE ELEVATION:	423.39		414.61		410.86		413.54	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
25-Jun-15	417.77	5.62	409.53	5.08	403.27	7.59	406.94	6.60
10-Jun-14	417.39	6.00	409.52	5.09	402.73	8.13	406.14	7.40
13-Jun-13	419.88	3.51	410.23	4.38	405.34	5.52	408.43	5.11
18-Jun-12	417.31	6.08	409.25	5.36	402.37	8.49	405.11	8.43
22-Jun-11	419.27	4.12	409.71	4.90	403.35	7.51	405.50	8.04
29-Dec-10	418.82	4.57	409.63	4.98	404.14	6.72	407.42	6.12
23-Jun-10	419.53	3.86	409.69	4.92	404.81	6.05	407.79	5.75
16-Dec-09	419.28	4.11	409.71	4.90	403.95	6.91	408.48	5.06
29-Jun-09	413.75	9.64	409.50	5.11	403.53	7.33	406.84	6.70
18-Dec-08	419.31	4.08	409.63	4.98	404.43	6.43	408.39	5.15
05-Jun-08	417.18	6.21	404.35	10.26	403.72	7.14	404.62	8.92
31-Dec-07	416.66	6.73	409.77	4.84	404.73	6.13	408.33	5.21
29-Jun-07	416.44	6.95	410.38	4.23	401.96	8.90	404.83	8.71
19-Dec-06	420.25	3.14	409.57	5.04	404.43	6.43	407.30	6.24

Table 2
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Groundwater Elevation Summary Table

Monitoring Well	B402R		B403		B404		8R	
WELL DEPTH (FT):	12.24		11.26		16.14		10.00	
REFERNCE ELEVATION:	409.44		411.05		410.77		415.30	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
10-Jun-14	406.24	3.20	407.61	3.44	405.14	5.63	412.62	2.68
10-Jun-14	405.98	3.46	407.37	3.68	405.14	5.63	412.21	3.09
13-Jun-13	406.69	2.75	408.26	2.79	408.37	2.40	412.95	2.35
18-Jun-12	405.03	4.41	406.95	4.10	404.33	6.44	412.46	2.84
22-Jun-11	405.73	3.71	407.94	3.11	406.08	4.69	412.54	2.76
29-Dec-10	406.64	2.80	407.98	3.07	406.73	4.04	412.18	3.12
23-Jun-10	406.62	2.82	408.23	2.82	407.84	2.93	412.64	2.66
16-Dec-09	406.64	2.80	408.11	2.94	407.56	3.21	411.92	3.38
29-Jun-09	406.46	2.98	408.05	3.00	406.66	4.11	412.72	2.58
18-Dec-08	406.81	2.63	407.91	3.14	406.92	3.85	412.59	2.71
05-Jun-08	405.56	3.88	407.42	3.63	405.42	5.35	411.88	3.42
31-Dec-07	406.97	2.47	408.08	2.97	407.27	3.50	412.45	2.85
29-Jun-07	405.32	4.12	407.20	3.85	404.27	6.50	411.93	3.37
19-Dec-06	405.47	3.97	408.01	3.04	406.76	4.01	412.00	3.30

Metalico Aluminum Recovery, Inc.; Syracuse Facility
Table 3
ROTH BROS. SMELTING CORP.
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B281)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B281	Jun-98	-	-	< 0.002	< 0.002	6.53	2690	-	-	-	-	-	-	-	-	-
	1999	-	-	< 0.010	< 0.010	7.47	3120	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-
	Jun-00	-	-	< 0.001	< 0.001	6.72	2630	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	< 0.001	< 0.001	7.02	2560	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	< 0.001	< 0.001	7.28	1956	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	< 0.001	< 0.001	7.24	2020	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	0.037	0.017	< 0.001	< 0.001	-	-	-	-	-	-	-	-	-	-	-
	Sep-02	0.023	< 0.010	< 0.001	< 0.001	6.86	3000	-	-	-	-	-	-	-	-	-
	Dec-02	-	-	< 0.001	-	7.03	2060	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	< 0.001	< 0.001	7.27	1063	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.001	< 0.001	7.32	3010	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	< 0.010	< 0.001	7.29	3170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	0.017	< 0.001	0.002	0.001	7.27	2170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	0.031	0.017	< 0.001	< 0.001	7.18	2230	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	< 0.001	0.001	7.47	2940	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	< 0.001	< 0.001	7.03	2990	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	0.004	< 0.001	7.39	1969	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.48	3000	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	0.016	0.011	< 0.001	< 0.001	7.33	2170	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.001	< 0.001	7.19	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	0.010	< 0.003	7.46	2780	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	0.009	0.024	7.17	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	0.028	< 0.010	< 0.003	< 0.003	7.32	778	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	0.064	< 0.010	< 0.003	< 0.003	8.71	321	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	0.050	< 0.010	< 0.003	< 0.003	8.04	249	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.10	2215	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	0.035	< 0.010	< 0.003	< 0.003	7.10	1700	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.00	3900	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	0.014	0.005	< 0.003	< 0.003	7.20	> 20000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.00	410	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	0.016	< 0.005	< 0.003	< 0.003	7.10	3600	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	3700	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-13	< 0.010	< 0.010	< 0.050	< 0.050	7.02	1730	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	7.30	2400	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	6.80	1280	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B290)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B290	Jun-98	-	-	**41.900**	< 0.020	6.94	2180	-	-	-	-	-	-	-	-	-
	1999	-	-	< 0.010	0.720	7.24	2370	-	-	-	-	-	-	-	-	-
	Jun-00	-	-	**0.045**	< 0.001	6.87	2410	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	**0.050**	< 0.001	7.42	2120	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	**0.092**	< 0.001	7.01	1784	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.007	< 0.001	7.01	1693	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	**0.048**	< 0.001	-	-	-	-	-	-	-	-	-	-	-
	Sep-02	-	-	0.008	< 0.001	6.93	2130	-	-	-	-	-	-	-	-	-
	Dec-02	-	-	**0.042**	-	7.13	1707	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.38	1451	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	**0.059**	< 0.001	7.37	2420	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.021	< 0.001	7.17	2240	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	-	-	0.008	0.002	8.08	1322	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	< 0.001	< 0.001	7.49	1590	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	7.45	1711	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.008	< 0.001	7.24	2410	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	0.003	7.41	1822	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	0.013	< 0.001	7.52	2450	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.012	< 0.001	7.68	1663	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	< 0.001	7.17	2600	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	0.023	< 0.003	7.67	1676	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	0.006	< 0.003	7.26	2430	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.016	0.004	8.10	701	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	0.019	< 0.003	8.47	1431	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.020	< 0.003	8.27	234	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	0.015	< 0.003	7.74	1786	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.20	5400	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.50	3600	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.012	< 0.003	7.10	2400	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	**0.065**	< 0.003	7.30	3300	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	0.011	0.009	0.007	< 0.003	7.10	2300	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	**0.036**	< 0.010	**0.305**	< 0.050	7.10	2900	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Aug-12	0.010	< 0.010	< 0.050	< 0.050	6.90	3500	-	-	-	-	-	-	-	-	-
	Jun-13	0.025	< 0.010	< 0.050	< 0.050	7.07	1660	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	0.021	< 0.010	< 0.050	< 0.050	7.40	3500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	7.30	2160	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B291)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B291	Sep-00	-	-	0.007	0.001	7.31	877	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.001	0.001	7.24	848	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.003	< 0.001	7.01	752	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	0.012	< 0.010	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	< 0.010	< 0.010	0.002	< 0.001	7.4	1134	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.37	800	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.003	0.001	7.38	1213	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	< 0.001	< 0.001	7.21	898	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	0.012	< 0.010	0.008	0.002	8.81	804	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	0.020	0.016	0.002	< 0.001	7.31	860	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	7.53	1167	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.003	< 0.001	7.21	746	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	0.001	0.001	7.10	958	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.18	996	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	< 0.010	< 0.010	0.002	0.001	7.36	813	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	< 0.001	7.23	971	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.09	856	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	6.87	968	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	< 0.010	< 0.010	0.010	0.005	7.58	478	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.62	650	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	< 0.010	< 0.010	< 0.003	< 0.003	8.21	876	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	8.09	592	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	< 0.010	< 0.010	< 0.003	< 0.003	6.90	950	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	1130	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	< 0.010	< 0.005	< 0.003	< 0.003	7.00	750	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.10	900	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	7.10	890	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	900	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-13	< 0.010	< 0.010	< 0.050	< 0.050	6.93	1020	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	6.70	1030	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	7.20	1030	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B401)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B401	Jun-98	-	-	0.012	< 0.002	-	-	-	-	-	-	-	-	-	-	-
	1999	-	-	0.061	< 0.010	6.69	1510	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-00	-	-	0.044	0.003	6.78	1275	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	0.350	0.002	7.29	1159	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.059	0.007	7.44	1180	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.033	< 0.001	7.26	810	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	0.210	< 0.001	-	-	-	-	-	-	-	-	-	-	-
	Sep-02	-	-	0.060	0.002	7.48	644	-	-	-	-	-	-	-	-	-
	Dec-02	-	-	0.013	-	7.27	925	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.024	< 0.001	7.32	781	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.010	0.003	7.66	1109	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.010	0.001	7.15	1126	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	-	-	0.021	0.002	8.37	791	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.004	< 0.001	7.48	785	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	**0.031**	< 0.001	7.49	1053	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.005	< 0.001	7.11	1030	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	0.002	< 0.001	7.21	937	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	0.003	< 0.001	7.36	1038	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	0.001	7.83	814	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.007	< 0.001	7.18	1066	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	**0.042**	< 0.003	7.46	986	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	0.011	< 0.003	**6.39**	502	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.008	0.003	7.46	441	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.32	691	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.017	< 0.003	8.08	930	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.90	693	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	6.90	1110	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	1520	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	6.90	1100	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.10	1250	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.90	1160	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	1110	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-13	< 0.010	< 0.010	< 0.050	< 0.050	6.69	1260	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	8.50	1180	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	7.20	1150	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B402R)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B402R	Dec-05	-	-	**0.260**	0.001	7.73	3060	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**1.20**	< 0.05	-	-
	Jun-06	-	-	0.003	< 0.003	8.37	2960	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	**0.048**	< 0.003	**8.61**	2680	**0.10**	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	**0.150**	0.010	8.11	1658	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	**0.042**	< 0.003	8.13	1470	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	**0.033**	< 0.003	7.33	273	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	**0.149**	< 0.003	8.27	1893	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.90	3000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	**0.030**	< 0.003	8.20	2280	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	**0.028**	< 0.003	8.30	> 20000	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	**0.370**	< 0.003	8.40	3200	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	**0.034**	0.016	**0.235**	< 0.003	8.20	2800	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	0.015	0.014	< 0.050	< 0.050	7.90	2700	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Aug-12	0.012	< 0.010	< 0.050	< 0.050	7.60	2400	-	-	-	-	-	-	-	-	-
	Jun-13	0.012	< 0.010	< 0.050	< 0.050	7.76	2600	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	7.90	2700	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	0.010	< 0.010	< 0.050	< 0.050	8.00	240	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B403)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B403	Jun-98	-	-	0.284	< 0.002	7.21	1280	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	1999	-	-	0.240	0.010	7.36	710	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17	< 0.01	-	-
	Jun-00	-	-	0.010	0.004	7.35	402	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	0.007	0.003	8.41	520	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.002	0.002	8.12	970	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.004	0.003	7.54	415	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	-	-	0.005	< 0.001	7.11	456	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.003	-	7.52	201	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	0.002	< 0.001	7.97	200	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.002	< 0.001	8.03	536	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.002	< 0.001	7.61	351	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.004	0.001	8.41	235	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.003	0.002	7.44	296	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	0.002	7.65	681	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.001	< 0.001	7.23	662	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	< 0.001	7.52	613	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.82	1156	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	0.002	7.64	1135	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	0.002	0.001	7.18	1372	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.36	1479	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	7.85	1719	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	< 0.003	0.005	8.41	822	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.61	913	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	< 0.003	< 0.003	8.25	1121	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.81	771	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.40	1160	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.20	1280	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	7.30	1020	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	6.31	1080	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.90	1060	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.00	960	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-13	< 0.010	< 0.010	< 0.050	< 0.050	7.07	970	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	8.00	960	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	7.70	1010	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well B404)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B404	Jun-98	-	-	0.007	0.003	**10.55**	2380	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	1999	-	-	< 0.010	< 0.010	6.72	1740	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.17**	< 0.01	-	-
	Jun-00	-	-	0.004	0.002	6.97	1573	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-00	-	-	0.002	0.002	7.32	1114	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-00	-	-	0.003	< 0.001	7.47	589	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-01	-	-	0.003	0.003	7.54	610	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-02	-	-	< 0.001	< 0.001	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-02	-	-	0.003	< 0.001	7.09	731	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.003	-	7.33	374	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-03	-	-	< 0.001	< 0.001	7.61	272	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-03	-	-	0.002	< 0.001	7.63	544	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-03	-	-	0.001	< 0.001	7.26	526	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-03	-	-	0.004	0.002	**9.83**	297	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-04	-	-	0.001	0.002	8.14	286	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-04	-	-	0.001	< 0.001	**8.55**	516	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Sep-04	-	-	0.002	0.001	7.43	559	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-04	-	-	< 0.001	< 0.001	7.66	348	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.28	512	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-05	-	-	0.003	< 0.001	7.56	367	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-05	-	-	< 0.001	< 0.001	7.14	512	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-06	-	-	< 0.003	< 0.003	7.46	523	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-06	-	-	< 0.003	< 0.003	6.89	474	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Jun-07	-	-	0.006	0.004	7.24	365	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	7.24	365	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-08	-	-	0.009	< 0.003	8.07	618	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.08	539	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	6.90	600	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
	Dec-09	-	-	< 0.003	< 0.003	7.30	610	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	6.90	350	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.20	550	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-11	< 0.005	< 0.005	< 0.003	< 0.003	6.80	840	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	Jun-12	< 0.010	< 0.010	< 0.050	< 0.050	7.20	830	-	-	-	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-13	< 0.010	< 0.010	< 0.050	< 0.050	7.03	590	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-14	< 0.010	< 0.010	< 0.050	< 0.050	8.10	910	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-15	< 0.010	< 0.010	< 0.050	< 0.050	7.10	700	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-

Table 3
ROTH BROS. SMELTING CORP.
Corrective Action Management Unit (CAMU)
Groundwater Performance Monitoring
Historical Laboratory Analytical Summary Table (Monitoring Well 8R)

		Total Arsenic	Dissolved Arsenic	Total Lead	Dissolved Lead	pH	Specific Conductivity	Aroclors								
								1016	1221	1232	1242	1248	1254	1260	1262	1268
Units		mg/L	mg/L	mg/L	mg/L	s.u.	us/cm	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Class GA Standard		0.025	0.025	0.025	0.025	6.5-8.5	NA	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
8R	Sep-02	-	-	0.004	0.001	**9.21**	933	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-
	Dec-02	-	-	0.002	-	**9.62**	567	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**2.60**	< 0.05	-	-
	Mar-03	-	-	0.001	0.002	**8.82**	551	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.30**	< 0.05	-	-
	Jun-03	-	-	0.002	0.002	**8.59**	726	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.25**	< 0.05	-	-
	Sep-03	-	-	0.002	< 0.001	8.05	441	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**5.90**	< 0.05	-	-
	Dec-03	-	-	0.004	0.002	8.37	576	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**3.60**	< 0.05	-	-
	Mar-04	-	-	0.002	< 0.001	7.91	531	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**2.60**	< 0.05	-	-
	Jun-04	-	-	0.002	< 0.001	8.06	332	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.32**	< 0.05	-	-
	Sep-04	-	-	< 0.001	0.002	7.14	811	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	-	-
	Dec-04	-	-	0.009	< 0.001	7.36	996	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.98**	< 0.05	-	-
	Mar-05	-	-	< 0.001	< 0.001	7.76	1158	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**1.20**	< 0.05	-	-
	Jun-05	-	-	0.002	0.001	8.00	402	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**3.30**	< 0.05	-	-
	Dec-05	-	-	0.001	0.001	7.67	893	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.63**	< 0.05	-	-
	Jun-06	-	-	0.004	< 0.003	8.39	239	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.92**	< 0.05	-	-
	Dec-06	-	-	**0.210**	< 0.003	7.46	549	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**9.30**	< 0.05	-	-
	Jun-07	-	-	0.006	< 0.003	8.48	449	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**3.90**	< 0.05	-	-
	Dec-07	-	-	< 0.003	< 0.003	8.47	1113	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**0.70**	< 1.00	-	-
	Jun-08	-	-	**0.210**	< 0.003	7.81	1459	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**6.40**	< 0.05	-	-
	Dec-08	-	-	< 0.003	< 0.003	7.68	2668	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	-	-
	Jun-09	-	-	< 0.003	< 0.003	7.30	780	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**16.00**	< 1.00	< 1.00	< 1.00
	Dec-09	-	-	< 0.003	< 0.003	7.10	1010	< 1.10	< 1.10	< 1.10	< 1.10	< 1.10	**6.90**	< 1.10	< 1.10	< 1.10
	Jun-10	-	-	< 0.003	< 0.003	7.40	22	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	**9.20**	< 2.00	-	-
	Dec-10	-	-	< 0.003	< 0.003	7.40	11200	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	**1.70 J**	< 1.00	-	-
	Jun-11	0.013	0.013	< 0.003	< 0.003	7.10	10400	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	**23.00**	< 10.00	< 10.00	< 10.00
	Jun-12	0.016	0.012	< 0.050	< 0.050	6.90	15300	-	-	-	< 0.47	< 0.47	**15.00**	< 0.47	-	-
	Aug-12	0.016	< 0.010	< 0.050	< 0.050	6.90	12500	< 0.05	< 0.05	< 0.05	< 0.47	**0.80**	**1.30**	**0.18 P**	-	-
	Jun-13	< 0.010	0.016	< 0.050	< 0.050	6.46	> 20000	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	**4.30**	< 0.24	-	-
	Jun-14	0.018	**0.030**	< 0.050	< 0.050	6.60	720000	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	**4.30**	< 0.24	-	-
	Jun-15	< 0.100	< 0.500	< 0.100	< 0.500	7.50	>20000	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	**620.00**	< 0.24	-	-
	Sep-15	-	-	-	-	-	-	< 0.47	< 0.50	< 0.47	< 0.47	**1.1 P**	**6.40**	< 0.47	-	-

Appendix A

Barton & Loguidice

Engineers • Environmental Scientists • Planners • Landscape Architects

FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	B-281 (MS/MSD)
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Sunny	Temperature:	75 °F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	5.60
Measured Well Depth (feet)*:	13.03
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.19

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/25/15
Time: 12:51

PURGING METHOD

Equipment:						
	Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
	Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 3.57
Actual Volume of Water Purged (gallons): 2.50

Did well purge dry? No [ ] Yes [X] ¼ bailers
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:						
	Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
	Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~DNS~~/MPS/NCM Time: 10:10 AM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	6.8	Sp. Conductivity (umhos/cm)	1280
Temperature (F)	69.3	Eh-Redox Potential (mV)	65
Turbidity (NTUs)	1.48	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Six bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:

Rev. 4/09 (MPS)

Barton & Loguidice

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	B-290
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Sunny	Temperature:	75°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	5.08
Measured Well Depth (feet)*:	10.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.83

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/25/15
Time: 13:13

PURGING METHOD

Equipment:						
	Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
	Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 2.49
Actual Volume of Water Purged (gallons): 1.75

Did well purge dry? No [ ] Yes [X] < 1¼ bailers
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:						
	Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
	Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~NK~~/MPS /NCM Time: 10:34 AM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.3	Sp. Conductivity (umhos/cm)	2100
Temperature (F)	65.1	Eh-Redox Potential (mV)	27
Turbidity (NTUs)	16.8	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:
Water turned orange during sampling

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	B-291
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Sunny	Temperature:	75°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	~~3.42~~ 7.59
Measured Well Depth (feet)*:	12.54
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	~~1.46~~ 0.79

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/25/15
Time: ~~13:30~~ 14:20

PURGING METHOD

Equipment:

Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): ~~4.38~~ 2.37
Actual Volume of Water Purged (gallons): ~~2.00~~ 1.50

Did well purge dry? No [ ] Yes [X]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MPK~~MPS/NCM Time: 11:33AM Date: 6/25/15

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.2	Sp. Conductivity (umhos/cm)	1030
Temperature (F)	62.4	Eh-Redox Potential (mV)	51
Turbidity (NTUs)	11.73	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: ____ Date: ____

COMMENTS:
Lock cut & replaced

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	B-401
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Sunny	Temperature:	75°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	6.60
Measured Well Depth (feet)*:	13.03
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.03

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MAS
Date: 06/25/15
Time: 1330

PURGING METHOD

Equipment:						
	Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
	Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 3.09
Actual Volume of Water Purged (gallons): 1.25

Did well purge dry?	No	[ ]	Yes	[X]	
Did well recover?	No	[ ]	Yes	[X]	Recovery Time: Overnight

SAMPLING METHOD

Equipment:						
	Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
	Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MAS~~/MPS/NCM Time: 11:10 AM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: ____ Sediment: ____
Odor: ____

Field Measured Parameters

pH (Standard Units)	7.2	Sp. Conductivity (umhos/cm)	1150
Temperature (F)	66.0	Eh-Redox Potential (mV)	103
Turbidity (NTUs)	4.50	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: ____ Date: ____

COMMENTS:
Old tubing obstruction removed from well
Cut & replaced rock

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	B-402R
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Partly Cloudy	Temperature:	75°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	3.20
Measured Well Depth (feet)*:	12.24
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.45

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/25/15
Time: 15:03

PURGING METHOD

Equipment:

Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 4.35
Actual Volume of Water Purged (gallons): 2.75

Did well purge dry? No [ ] Yes [X]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MK~~MPS/NCM Time: ~~12:04~~ 12:04 PM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: ~~Amber~~ Hazy Sediment: Organics
Odor: None

Field Measured Parameters

pH (Standard Units)	8.0	Sp. Conductivity (umhos/cm)	240
Temperature (F)	64.3	Eh-Redox Potential (mV)	98
Turbidity (NTUs)	27.0	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	**SAMPLE LOCATION:**	B-403
CLIENT:	Metalico Aluminum Recovery, Inc.	**JOB #:**	1206.002.007
Weather Conditions:	Sunny	**Temperature:**	70's F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	3.44
Measured Well Depth (feet)*:	11.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.25

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MAS
Date: 06/25/15
Time: 13:20

PURGING METHOD

Equipment:

Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 3.75
Actual Volume of Water Purged (gallons): 2.00

Did well purge dry? No [ ] Yes [✓]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MAS~~/MPS/NCM Time: 10:54 AM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: Organics
Odor: None

Field Measured Parameters

pH (Standard Units)	7.7	Sp. Conductivity (umhos/cm)	1010
Temperature (F)	64.3	Eh-Redox Potential (mV)	28
Turbidity (NTUs)	11.96	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:

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FIELD SAMPLING DATA SHEET

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SITE:	Metalico - Thompson Road	**SAMPLE LOCATION:**	B-404
CLIENT:	Metalico Aluminum Recovery, Inc.	**JOB #:**	1206.002.007
Weather Conditions:	Sunny / Partly Cloudy	**Temperature:**	75°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	5.63
Measured Well Depth (feet)*:	16.14
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.68

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/26/15
Time: 14:44

PURGING METHOD

Equipment:

Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 5.04
Actual Volume of Water Purged (gallons): 6.00

Did well purge dry? No [X] Yes [ ]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MJK~~/MPS / NCM Time: 11:49 AM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.1	Sp. Conductivity (umhos/cm)	700
Temperature (F)	62.9	Eh-Redox Potential (mV)	77
Turbidity (NTUs)	1.80	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	SAMPLE LOCATION:	MW-8R / Dupe-X
CLIENT:	Metalico Aluminum Recovery, Inc.	JOB #:	1206.002.007
Weather Conditions:	Partly Cloudy	Temperature:	70°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	2.68
Measured Well Depth (feet)*:	10.00
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.17

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/25/15
Time: 15:25

PURGING METHOD

Equipment:

Bailer	[X]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[ ]
Dedicated	[ ]	Bladder Pump	[ ]		

Calculated Volume Of Water To Be Purged (gallons): 3.51
Actual Volume of Water Purged (gallons): 3.50

Did well purge dry? No [ ] Yes [X]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:

Bailer	[ ]	Submersible Pump	[ ]	Air Lift System	[ ]
Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump	[X]
Dedicated	[ ]	Bladder Pump	[ ]		

Sampled by: ~~MK~~/MPS/NCM Time: 12:30PM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: Cloudy, white tan Sediment: None
Odor: Chemically

Field Measured Parameters

pH (Standard Units)	7.5	Sp. Conductivity (umhos/cm)	>20000
Temperature (F)	66.2	Eh-Redox Potential (mV)	-110
Turbidity (NTUs)	3930	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Eight bottles - T-Pb,As; D-Pb,As; PCBs (2) + Dupe-X

Samples Delivered to: ALS Courier Time: ____ Date: ____

COMMENTS:
Purge water white/tan to whitish-gray

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	**SAMPLE LOCATION:**	MW-8R
CLIENT:	Metalico Aluminum Recovery, Inc.	**JOB #:**	1206.002.007
Weather Conditions:	Overcast	Temperature:	74F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): ____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	3.08
Measured Well Depth (feet)*:	10.00
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.11

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 09/09/15
Time: 14:48

PURGING METHOD

Equipment:	Bailer	[X]	Submersible Pump	[ ]	Air Lift System [ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump [ ]
	Dedicated	[ ]	Bladder Pump	[ ]	

Calculated Volume Of Water To Be Purged (gallons): 3.33
Actual Volume of Water Purged (gallons): 2.75
Did well purge dry? No [ ] Yes [X]
Did well recover? No [ ] Yes [X] Recovery Time: Overnight

SAMPLING METHOD

Equipment:	Bailer	[ ]	Submersible Pump	[ ]	Air Lift System [ ]
	Non-dedicated	[X]	Foot Valve	[ ]	Peristaltic Pump [X]
	Dedicated	[ ]	Bladder Pump	[ ]	

Sampled by: ~~MJK/~~MPS Time: 11:35 Date: 09/10/15

SAMPLING DATA

Sample Appearance
Color: Yellow Murky Sediment: None
Odor: Chemical

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	
Temperature (F)		Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	

Samples Collected (Number/Type):
PCBs (2)

Samples Delivered to: ALS Courier Time: ____ Date: ____

COMMENTS:

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FIELD SAMPLING DATA SHEET

SITE:	Metalico - Thompson Road	**SAMPLE LOCATION:**	Equipment Blank
CLIENT:	Metalico Aluminum Recovery, Inc.	**JOB #:**	1206.002.007
Weather Conditions:	Part Cloud	Temperature:	79°F

SAMPLE TYPE: Groundwater [X] Surface Water [ ] Other (specify): _____
Sediment [ ] Leachate [ ]

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	
Well Casing Diameter (inches):	
Calculated Volume in Well Casing (gallons):	

*depth from measuring point

Measuring Point: _____
Measured by: _____
Date: _____
Time: _____

PURGING METHOD

Equipment: Bailer [ ] Submersible Pump [ ] Air Lift System [ ]
Non-dedicated [ ] Foot Valve [ ] Peristaltic Pump [ ]
Dedicated [ ] Bladder Pump [ ]

Calculated Volume Of Water To Be Purged (gallons): _____
Actual Volume of Water Purged (gallons): _____

Did well purge dry? No [ ] Yes [ ]
Did well recover? No [ ] Yes [ ] Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer [ ] Submersible Pump [ ] Air Lift System [ ]
Non-dedicated [X] Foot Valve [ ] Peristaltic Pump [X]
Dedicated [ ] Bladder Pump [ ]

Sampled by: ~~MJK~~/MPS/NCM Time: 12:16 PM Date: 6/26/15

SAMPLING DATA

Sample Appearance
Color: - Sediment: -
Odor: -

Field Measured Parameters

pH (Standard Units)	-	Sp. Conductivity (umhos/cm)	-
Temperature (F)	-	Eh-Redox Potential (mV)	-
Turbidity (NTUs)	-	Dissolved Oxygen (mg/L)	-

Samples Collected (Number/Type):
Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: ALS Courier Time: _____ Date: _____

COMMENTS:

Rev. 4/09 (MPS)

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Record of Calibration

Project No: 1206.002.007 Date: 06/26/15

Calibrated By: MPS Time: 0858

pH Instrument Model: pH Testr 10

Standard Solution	Calibration Reading	Acceptable Range	
pH 4:	4.0	(+/- 1.0 pH, pH 3.0 - 5.0)	Pass / Fail
pH 7:	7.0	(+/- 1.5 pH, pH 5.5 - 8.5)	
pH 10:	10.0	(+/- 1.0 pH, ph 9.0 - 11.0)	

Sp.Conductivity
Instrument Model: EC Testr 11

Standard Solution	Calibration Reading	Acceptable Range	
1413 uS	1410	(+/- 1.0 % Error = 1399-1427)	Pass / Fail

ORP Instrument Model: ORP Testr 10

Standard Solution	Calibration Reading	Acceptable Range	
220 mV	245 @ 65°F	(+/- 5% at 25°C, 209 - 231 mV)	Pass / Fail
or			
YSI Zobell Soln	-	(Refer to YSI calibration table)	

Turbidimeter Model: Micro TPI

Standard Solution	Calibration Reading	Acceptable Range	
0 NTU	0.0	Blank with 0.0 NTU	(Pass) / Fail
1.0 NTU	1.00	(0.5-1.5 NTU)	
10 NTU	10.00	(8-12 NTU)	

Methane Meter Model: NA

Standard Gas	Calibration Reading	Acceptable Range	
2.50% Methane	-	(+/- 5.0% Error, 2.63-2.38% methane)	Pass / Fail

Comments:

ALS

1565 Jefferson Rd Bldg 300, Suite 360 Rochester, NY 14623 585-288-5380 FAX 585-288-8475

SR# ______

PAGE 1 OF 1

Project Name: Metalico Project Number 1266.003.007

Project Manager: Matt Strodel Company: Barton & Loguidice

Company/Address: B+L 290 Elwood Davis Rd Phone: 315-457-5200

City, State, Zip: Syracuse NY 13088 FAX: ______

Sampler's Signature: [signature]

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	8082	Total As, Pb	Dissolved As, Pb			REMARKS
B-281	06/26/15	10:10		Water	6	X	X	X			MS/MSD △
B-290	↓	10:34		↓	4	↓	↓	↓			
B-291		11:33			4						
B-401		11:10			4						
B-402R		12:04			4						
B-403		10:54			4						
B-404		11:49			4						
MW-8R		12:30			4						
Equipment Blank		12:16			4						
Dupe X		—			4						

TURNAROUND REQUIREMENTS

___ 24 hr ___ 48 hr ___ 5 BD

X Standard (15 BD)

___ Provide FAX Preliminary Results

Requested Report Date: ______

REPORT REQUIREMENTS

___ I. Routine Report: Results and Method Blank (Surrogate, as required)

X II. Results w/ QC (Dup., MS, MSD as req)

___ III. Results (with QC and Calibration Summaries)

___ IV. ASP-B

___ V. CLP

___ EDD?:

Comments/Special Instructions:

Metals- 200.7 Fe, Zn, Al, Cu, Cd, Pb, Cr

Invoice Information

P.O. # ______

Bill to: Metalico

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature:	Signature: [signature]	Signature: [signature]
Printed Name: Matt Strodel	Printed Name:	Printed Name: J. Steven	Printed Name: Daniel Ward
Firm: B+L	Firm:	Firm: ALS	Firm: ALS
Date/Time: 06/26/15 13:25	Date/Time:	Date/Time: 6/30/15 1635	Date/Time: 6/30/15 / 1635

R1505248 5

Barton & Loguidice, PC

Metalico Site

000413

R1505248
Barton & Loguidice, PC
Metalico Site
5

Cooler Receipt and Preservation Check Form

Project/Client B+L Folder Number R15-5244

Cooler received on 6/30/15 by: sfw COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y (N)	5a	Perchlorate samples have required headspace?	Y N (NA)
2	Custody papers properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y (N) NA
3	Did all bottles arrive in good condition (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) Dry Ice Gel packs present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 6/30/15 Time: 1701 ID: IR#3 IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1°	4.2°	5.3°	3.9°	2.3°	3.3°	
Correction Factor (°C)	-0.4°	-0.4°	-0.4°	+0.6°	-0.4°	-0.4°	
Corrected Temp (°C)	3.7°	3.8°	4.9°	4.5°	1.9°	2.9°	
Within 0-6°C?	(Y) N	(Y) N	(Y) N	(Y) N	(Y) N	(Y) N	Y N

If out of Temperature, note packing/ice condition: ______ Ice melted Poorly Packed Same Day Rule
&Client Approval to Run Samples: ______ Standing Approval Client aware at drop-off Client notified by: ______

All samples held in storage location: R-002 by sfw on 6/30/15 at 1701
5035 samples placed in storage location: ______ by ______ on ______ at ______

PC Secondary Review: [signature]

Cooler Breakdown: Date: ~~6-~~ 7/1/15 Time: 0815 by: MDS

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

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	X		BDB26145A	6/16				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: ______

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

Bottle lot numbers: 102014-2AAW, 050415-1BCT, 051815-2AAO

Other Comments:

8 BOD
8 NO3
8 CL (6427196)
6/30/15
0910-7
1236

PC Secondary Review: [signature]

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

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r8.doc 3/27/15

Appendix B

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

July 21, 2015

Analytical Report for Service Request No: R1505248

Mr. Matthew Strodel
Barton & Loguidice, PC
290 Elwood Davis Road, Box 3107
Syracuse, NY 13220

Laboratory Results for: Metalico Site/1206.006.004

Dear Mr. Strodel:

Enclosed are the results of the sample(s) submitted to our laboratory on June 30, 2015. For your reference, these analyses have been assigned our service request number **R1505248**.

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

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Tracy Christ

Tracy Christ
Project Manager

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1505248

Lab ID	Client ID
R1505248-001	B-281
R1505248-002	B-281 Dissolved
R1505248-003	B-290
R1505248-004	B-290 Dissolved
R1505248-005	B-291
R1505248-006	B-291 Dissolved
R1505248-007	B-401
R1505248-008	B-401 Dissolved
R1505248-009	B-402R
R1505248-010	B-402R Dissolved
R1505248-011	B-403
R1505248-012	B-403 Dissolved
R1505248-013	B-404
R1505248-014	B-404 Dissolved
R1505248-015	MW-8R
R1505248-016	MW-8R Dissolved
R1505248-017	Equipment Blank
R1505248-018	Equipment Blank Dissolved
R1505248-019	Dupe X
R1505248-020	Dupe X Dissolved

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.

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REPORT QUALIFIERS AND DEFINITIONS

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

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

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

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

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

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

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

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

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

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

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

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

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

C Confirmed by GC/MS

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

X See Case Narrative for discussion.

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

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

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

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

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1010
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-281		
Lab Code:	R1505248-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 15:26	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 15:26	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1010
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-281 Dissolved		
Lab Code:	R1505248-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 16:06	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 16:06	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1010
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/6/15 12:33
Sample Name:	B-281	**Units:**	µg/L
Lab Code:	R1505248-001	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	451930
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070615\BA518.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	10-125	7/6/15 12:33	
Tetrachloro-m-xylene	74	18-126	7/6/15 12:33	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1034
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-290		
Lab Code:	R1505248-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 16:35	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 16:35	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1034
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-290 Dissolved		
Lab Code:	R1505248-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 16:41	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 16:41	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1034
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/6/15 12:58
Sample Name:	B-290	**Units:**	µg/L
Lab Code:	R1505248-003	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	451930
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070615\BA519.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	37	10-125	7/6/15 12:58	
Tetrachloro-m-xylene	74	18-126	7/6/15 12:58	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1133
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-291		
Lab Code:	R1505248-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 16:46	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 16:46	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1133
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-291 Dissolved		
Lab Code:	R1505248-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 16:52	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 16:52	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1133
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 12:00
Sample Name:	B-291	**Units:**	µg/L
Lab Code:	R1505248-005	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA533.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10-125	7/7/15 12:00	
Tetrachloro-m-xylene	74	18-126	7/7/15 12:00	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1110
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-401		
Lab Code:	R1505248-007	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:09	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:09	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1110
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-401 Dissolved		
Lab Code:	R1505248-008	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:15	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:15	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1110
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 12:26
Sample Name:	B-401	**Units:**	µg/L
Lab Code:	R1505248-007	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA534.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	59	10-125	7/7/15 12:26	
Tetrachloro-m-xylene	75	18-126	7/7/15 12:26	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1204
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-402R		
Lab Code:	R1505248-009	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	**10**		µg/L	10	1	7/17/15	7/18/15 17:21	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1204
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-402R Dissolved		
Lab Code:	R1505248-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:27	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1204
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 12:52
Sample Name:	B-402R	**Units:**	µg/L
Lab Code:	R1505248-009	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA535.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	55	10-125	7/7/15 12:52	
Tetrachloro-m-xylene	99	18-126	7/7/15 12:52	

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Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1054
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-403		
Lab Code:	R1505248-011	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:32	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1054
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-403 Dissolved		
Lab Code:	R1505248-012	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:38	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1054
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 13:17
Sample Name:	B-403	**Units:**	µg/L
Lab Code:	R1505248-011	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA536.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10-125	7/7/15 13:17	
Tetrachloro-m-xylene	70	18-126	7/7/15 13:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1149
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-404		
Lab Code:	R1505248-013	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:44	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1149
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	B-404 Dissolved		
Lab Code:	R1505248-014	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:50	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1149
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 13:43
Sample Name:	B-404	**Units:**	µg/L
Lab Code:	R1505248-013	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA537.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	51	10-125	7/7/15 13:43	
Tetrachloro-m-xylene	66	18-126	7/7/15 13:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1230
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	MW-8R		
Lab Code:	R1505248-015	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	100	U	µg/L	100	10	7/17/15	7/18/15 15:03	
Lead, Total	6010C	500	U	µg/L	500	10	7/17/15	7/18/15 15:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1230
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	MW-8R Dissolved		
Lab Code:	R1505248-016	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	100	U	µg/L	100	10	7/17/15	7/18/15 15:08	
Lead, Dissolved	6010C	500	U	µg/L	500	10	7/17/15	7/18/15 15:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1230
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 14:34
Sample Name:	MW-8R	**Units:**	µg/L
Lab Code:	R1505248-015	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA539.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	24	U	24	
11104-28-2	Aroclor 1221	24	U	24	
11141-16-5	Aroclor 1232	24	U	24	
53469-21-9	Aroclor 1242	24	U	24	
12672-29-6	Aroclor 1248	24	U	24	
11097-69-1	Aroclor 1254	**620**		24	
11096-82-5	Aroclor 1260	24	U	24	

Surrogate Name	%Rec		Control Limits	Date Analyzed	Q
Decachlorobiphenyl	0	*	10-125	7/7/15 14:34	D
Tetrachloro-m-xylene	0	*	18-126	7/7/15 14:34	D

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1216
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	Equipment Blank		
Lab Code:	R1505248-017	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 17:56	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 17:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1216
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	Equipment Blank Dissolved		
Lab Code:	R1505248-018	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 18:02	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 18:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15 1216
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 14:08
Sample Name:	Equipment Blank	**Units:**	µg/L
Lab Code:	R1505248-017	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA538.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.047	U	0.047	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.047	U	0.047	
53469-21-9	Aroclor 1242	0.047	U	0.047	
12672-29-6	Aroclor 1248	0.047	U	0.047	
11097-69-1	Aroclor 1254	0.047	U	0.047	
11096-82-5	Aroclor 1260	0.047	U	0.047	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	21	10-125	7/7/15 14:08	
Tetrachloro-m-xylene	72	18-126	7/7/15 14:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	Dupe X		
Lab Code:	R1505248-019	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	100	U	µg/L	100	10	7/17/15	7/18/15 15:14	
Lead, Total	6010C	500	U	µg/L	500	10	7/17/15	7/18/15 15:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15
Sample Matrix:	Water	**Date Received:**	6/30/15
Sample Name:	Dupe X Dissolved		
Lab Code:	R1505248-020	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	100	U	µg/L	100	10	7/17/15	7/18/15 15:20	
Lead, Dissolved	6010C	500	U	µg/L	500	10	7/17/15	7/18/15 15:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Extracted:	7/1/15
		Date Analyzed:	7/7/15 15:00
Sample Name:	Dupe X	**Units:**	µg/L
Lab Code:	R1505248-019	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	452144
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070715\BA540.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	24	U	24	
11104-28-2	Aroclor 1221	24	U	24	
11141-16-5	Aroclor 1232	24	U	24	
53469-21-9	Aroclor 1242	24	U	24	
12672-29-6	Aroclor 1248	24	U	24	
11097-69-1	Aroclor 1254	**550**		24	
11096-82-5	Aroclor 1260	24	U	24	

Surrogate Name	%Rec		Control Limits	Date Analyzed	Q
Decachlorobiphenyl	0	*	10-125	7/7/15 15:00	D
Tetrachloro-m-xylene	0	*	18-126	7/7/15 15:00	D

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1505248-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 14:51	
Arsenic, Total	6010C	10	U	µg/L	10	1	7/17/15	7/18/15 14:51	
Lead, Dissolved	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 14:51	
Lead, Total	6010C	50	U	µg/L	50	1	7/17/15	7/18/15 14:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	7/1/15
		Date Analyzed:	7/6/15 09:06
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1507235-01	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	451930
Prep Method:	EPA 3510C	**Extraction Lot:**	239401
Data File Name:	I:\ACQUDATA\6890G\DATA\070615\BA510.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
12674-11-2	Aroclor 1016	0.050	U	0.050	
11104-28-2	Aroclor 1221	0.050	U	0.050	
11141-16-5	Aroclor 1232	0.050	U	0.050	
53469-21-9	Aroclor 1242	0.050	U	0.050	
12672-29-6	Aroclor 1248	0.050	U	0.050	
11097-69-1	Aroclor 1254	0.050	U	0.050	
11096-82-5	Aroclor 1260	0.050	U	0.050	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	75	10-125	7/6/15 09:06	
Tetrachloro-m-xylene	62	18-126	7/6/15 09:06	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Analyzed:	7/18/15

Matrix Spike Summary
Inorganic Parameters

Sample Name:	B-281	**Units:**	µg/L
Lab Code:	R1505248-001	**Basis:**	NA

Analytical Method: 6010C
Prep Method: EPA 3005A/3010A

		B-281MS Matrix Spike R1505248-001MS			B-281DMS Duplicate Matrix Spike R1505248-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Total	ND	39	40	97	40	40	99	75 - 125	2	20
Lead, Total	ND	485	500	97	488	500	98	75 - 125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Barton & Loguidice, PC	**Service Request:**	R1505248
Project:	Metalico Site/1206.006.004	**Date Collected:**	6/26/15
Sample Matrix:	Water	**Date Received:**	6/30/15
		Date Analyzed:	7/18/15

Matrix Spike Summary
Inorganic Parameters

Sample Name:	B-281 Dissolved	**Units:**	µg/L
Lab Code:	R1505248-002	**Basis:**	NA

Analytical Method: 6010C
Prep Method: EPA 3005A/3010A

		B-281 DissolvedMS Matrix Spike R1505248-002MS			B-281 DissolvedDMS Duplicate Matrix Spike R1505248-002DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Dissolved	ND	39	40	98	40	40	100	75 - 125	3	20
Lead, Dissolved	ND	483	500	97	496	500	99	75 - 125	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.006.004
Sample Matrix: Water

Service Request: R1505248
Date Analyzed: 7/18/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1505248-LCS Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	6010C	38.1	40	95	80 - 120
Arsenic, Total	6010C	38.1	40	95	80 - 120
Lead, Dissolved	6010C	499	500	100	80 - 120
Lead, Total	6010C	499	500	100	80 - 120

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

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, PC
Project: Metalico Site/1206.006.004
Sample Matrix: Water

Service Request: R1505248
Date Analyzed: 7/ 6/15

Lab Control Sample Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 239401

	Lab Control Sample RQ1507235-02			Duplicate Lab Control Sample RQ1507235-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	0.337	0.500	67	0.290	0.500	58	40 - 140	15	30
Aroclor 1260	0.402	0.500	80	0.353	0.500	71	24 - 157	13	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Preparation Information Benchsheet

Prep Run#: 239401
Team: Semivoa GC/DMURPHY

Prep WorkFlow: OrgExtLLAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 7/1/15 09:50 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1507235-01	MB		1000mL	608 Modified/PCB LL	6			2.00mL	clear-colorless	1.0000 mL/81274	
2	RQ1507235-01	MB		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	1.0000 mL/81274	
3	RQ1507235-02	LCS		1000mL	608 Modified/PCB LL	6			2.00mL	clear-colorless	1.0000 mL/81274; 0.1000 mL/81089	
4	RQ1507235-02	LCS		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	0.1000 mL/81089; 1.0000 mL/81274	
5	RQ1507235-03	DLCS		1000mL	608 Modified/PCB LL	6			2.00mL	clear-colorless	0.1000 mL/81089; 1.0000 mL/81274	
6	RQ1507235-03	DLCS		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	0.1000 mL/81089; 1.0000 mL/81274	
7	R1505248-001	B-281	.02	1060mL	8082A/PCB LL	7			2.00mL	clear-colorless	1.0000 mL/81274	
8	R1505248-003	B-290	.02	1060mL	8082A/PCB LL	7			2.00mL	orange-opaque	1.0000 mL/81274	
9	R1505248-005	B-291	.01	1060mL	8082A/PCB LL	7			2.00mL	yellow-cloudy	1.0000 mL/81274	
10	R1505248-007	B-401	.01	1060mL	8082A/PCB LL	7			2.00mL	yellow-cloudy	1.0000 mL/81274	
11	R1505248-009	B-402R	.02	1060mL	8082A/PCB LL	7			2.00mL	brown-opaque	1.0000 mL/81274	
12	R1505248-011	B-403	.02	1060mL	8082A/PCB LL	7			2.00mL	yellow-cloudy	1.0000 mL/81274	
13	R1505248-013	B-404	.01	1060mL	8082A/PCB LL	7			2.00mL	clear-colorless	1.0000 mL/81274	
14	R1505248-015	MW-8R	.02	1060mL	8082A/PCB LL	7			10.00mL	brown-opaque	1.0000 mL/81274	
15	R1505248-017	Equipment Blank	.02	1060mL	8082A/PCB LL	7			2.00mL	clear-colorless	1.0000 mL/81274	
16	R1505248-019	Dupe X	.01	1060mL	8082A/PCB LL	7			10.00mL	brown-opaque	1.0000 mL/81274	
17	R1505252-001	Non-Industrial A	.03	1060mL	608 Modified/PCB LL	7			2.00mL	brown-cloudy	1.0000 mL/81274	
18	R1505252-002	Non-Industrial B	.03	1060mL	608 Modified/PCB LL	7			2.00mL	brown-cloudy	1.0000 mL/81274	
19	R1505252-003	Outfall 1	.03	1060mL	608 Modified/PCB LL	7			2.00mL	brown-cloudy	1.0000 mL/81274	
20	R1505252-004	Outfall 2	.03	1060mL	608 Modified/PCB LL	7			2.00mL	brown-cloudy	1.0000 mL/81274	
21	R1505252-005	Outfall 3	.03	1060mL	608 Modified/PCB LL	7			2.00mL	brown-cloudy	1.0000 mL/81274	

Spiking Solutions

Name:	8082 Spike 5 ug/mL AR 1260	Inventory ID	81089	Logbook Ref:		Expires On:	11/14/2015
Name:	8081/8082 Low Level surrogate 100ppb	Inventory ID	81274	Logbook Ref:		Expires On:	10/28/2015

Preparation Materials

Eppendorf Pipette Repeater	EXT #14 (61350)	2mL Graduated Vials	(81859)	Sulfuric Acid Reagent Grade H_2SO_4	(81851)
Hexanes 95%	(81713)	Dichloromethane (Methylene Chloride) 99.9% $MeCl_2$	canister (81753)	Prepared Sodium Sulfate Na_2SO_4	(82054)
Prepared Tetrabutylammonium hydrogen sulfate (TBA)	(81660)				

Preparation Information Benchsheet

Prep Run#: 239401
Team: Semivoa GC/DMURPHY

Prep WorkFlow: OrgExtLLAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 7/1/15 09:50 AM

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Acid Clean-EPA 3665A	Step:	Sulfur Clean-EPA 3660B	Step:	Final Volume
Started:	7/1/15 09:50	Started:	7/2/15 11:45	Started:	7/2/15 12:50	Started:	7/2/15 01:25	Started:	7/2/15 13:50
Finished:	7/1/15 14:47	Finished:	7/2/15 12:37	Finished:	7/2/15 13:20	Finished:	7/2/15 13:49	Finished:	7/2/15 15:54
By:	DMURPHY	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER
Comments		Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: 7/6 Spike Witness: MPEDRO Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

September 24, 2015 Service Request No:R1507563

Mr. John Benson
Barton & Loguidice, PC
290 Elwood Davis Drive
P.O. Box 3107
Syracuse, NY 13220

Laboratory Results for: Metalico -Syracuse CAMU

Dear Mr.Benson,

Enclosed are the results of the sample(s) submitted to our laboratory September 10, 2015
For your reference, these analyses have been assigned our service request number **R1507563.**

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

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Tracy Christ
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental

ALS ENVIRONMENTAL

Client:	Barton & Loguidice	**Service Request No.:**	R1507563
Project:	Metalico Syracuse	**Date Received:**	9/10/15
Sample Matrix:	Water		

CASE NARRATIVE

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

Sample Receipt

One sample was received for analysis at ALS Environmental on 9/10/15. The sample was received in good condition and consistent with the accompanying chain of custody form. The sample was stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Extractable Organics

The difference between the two columns for Aroclor 1248 on sample MW-8R (R1507563-001) was greater than 40%. This has been flagged with a "P".

No other analytical or quality control problems were encountered during analysis.

Client: Barton & Loguidice, PC **Service Request:**R1507563

Project: Metalico -Syracuse CAMU/1206.002.007

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1507563-001	MW-8R	9/10/2015	1135

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

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

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

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

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

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

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

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

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

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

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

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

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

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

C Confirmed by GC/MS

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

X See Case Narrative for discussion.

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

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

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

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

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

Client:	Barton & Loguidice, PC	**Service Request:**	R1507563
Project:	Metalico -Syracuse CAMU/1206.002.007	**Date Collected:**	09/10/15 11:35
Sample Matrix:	Water	**Date Received:**	09/10/15 16:15
Sample Name:	MW-8R	**Units:**	ug/L
Lab Code:	R1507563-001	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.47 U	0.47	10	09/17/15 16:31	9/14/15	
Aroclor 1221	0.50 U	0.50	10	09/17/15 16:31	9/14/15	
Aroclor 1232	0.47 U	0.47	10	09/17/15 16:31	9/14/15	
Aroclor 1242	0.47 U	0.47	10	09/17/15 16:31	9/14/15	
Aroclor 1248	**1.1 P**	0.47	10	09/17/15 16:31	9/14/15	
Aroclor 1254	**6.4**	0.47	10	09/17/15 16:31	9/14/15	
Aroclor 1260	0.47 U	0.47	10	09/17/15 16:31	9/14/15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	39	10 - 125	09/17/15 16:31	
Tetrachloro-m-xylene	72	18 - 126	09/17/15 16:31	

Client:	Barton & Loguidice, PC	**Service Request:**	R1507563
Project:	Metalico -Syracuse CAMU/1206.002.007	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1510686-01	**Basis:**	NA

Low Level Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1221	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1232	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1242	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1248	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1254	0.050 U	0.050	1	09/16/15 12:01	9/14/15	
Aroclor 1260	0.050 U	0.050	1	09/16/15 12:01	9/14/15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 125	09/16/15 12:01	
Tetrachloro-m-xylene	70	18 - 126	09/16/15 12:01	

Client: Barton & Loguidice, PC
Project: Metalico -Syracuse CAMU/1206.002.007
Sample Matrix: Water

Service Request: R1507563
Date Analyzed: 09/16/15

Duplicate Lab Control Sample Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

		Lab Control Sample RQ1510686-02			Duplicate Lab Control Sample RQ1510686-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	8082A	0.241	0.500	48	0.318	0.500	64	40-140	28	30
Aroclor 1260	8082A	0.315	0.500	63	0.394	0.500	79	24-157	22	30

Preparation Information Benchsheet

Prep Run#: 244695
Team: Semivoa GC/DMURPHY

Prep WorkFlow: OrgExtLLAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 9/14/15 06:51 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1510686-01	MB		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	1.0000 mL/83143	
2	RQ1510686-02	LCS		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	0.1000 mL/81089; 1.0000 mL/83143	
3	RQ1510686-03	DLCS		1000mL	8082A/PCB LL	6			2.00mL	clear-colorless	0.1000 mL/81089; 1.0000 mL/83143	
4	R1507563-001	MW-8R	.01	1060mL	8082A/PCB LL	7			2.00mL	brown-opaque	1.0000 mL/83143	

Spiking Solutions

Name: 8082 Spike 5 ug/mL AR 1260 Inventory ID 81089 Logbook Ref: Expires On: 11/14/2015

Name: 8081/8082 Low Level surrogate 100ppb Inventory ID 83143 Logbook Ref: Expires On: 01/13/2016

Preparation Materials

Eppendorf Pipette Repeater	EXT #14 (61350)	2mL Graduated Vials	(83588)	Sulfuric Acid Reagent Grade H2SO4	(83185)
Hexanes 95%	(83966)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	canister (84014)	Prepared Sodium Sulfate Na2SO4	(84116)
Prepared Tetrabutylammonium hydrogen sulfate (TBA)	(81660)				

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Acid Clean-EPA 3665A	Step:	Sulfur Clean-EPA 3660B	Step:	Final Volume
Started:	9/14/15 06:51	Started:	9/14/15 11:30	Started:	9/14/15 12:14	Started:	9/14/15 12:32	Started:	9/14/15 12:47
Finished:	9/14/15 12:36	Finished:	9/14/15 12:13	Finished:	9/14/15 12:31	Finished:	9/14/15 12:46	Finished:	9/14/15 13:12
By:	DMURPHY	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER
Comments		Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: MQR Date: 9/15/15 Spike Witness: MPEDRO Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30756

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

Project Name: Metalico - Syracuse CAMU	Project Number: 1206.003.007
Project Manager: John Benson	Report CC: Matt Strodel
Company/Address: Barton + Loguidice, 290 Elwood Davis Rd, Liverpool NY 13088	
Phone #: 315-457-5200	Email: JBenson Bartonand MStrodel @ Loguidice.com
Sampler's Signature: [signature]	Sampler's Printed Name: Matt Strodel

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

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

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○8260 ○624 ○CLP	GC/MS SVOAs ○8270 ○625	GC VOAs ○8021 ○601/602	PESTICIDES ○8081 ○608	PCBs ○8082 ○608 (608 list by 8082 low level Leachable)	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)								REMARKS/ ALTERNATE DESCRIPTION
MW-8R		09/10/15	11:35	Water	2					X										

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED NY

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE ____________

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

INVOICE INFORMATION
PO #
BILL TO: Metalico

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature [signature]	Signature [signature]	Signature [signature]	Signature	Signature	
Printed Name Matthew Strodel	Printed Name Scott Seavy	Printed Name Scott Seavy	Printed Name	Printed Name	
Firm B+L	Firm ALS	Firm ALS	Firm	Firm	
Date/Time 9/10/15 - 12:18	Date/Time 9/10/15 1445	Date/Time 9/10/15 1615	Date/Time	Date/Time	

R1507563 5
Barton & Loguidice, PC
Metalico Site

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

Cooler Receipt and Preservation Check Form

Project/Client Boston + Logistics Folder Number R15-7563

Cooler received on 9/10/15 by: MDS COURIER: ~~ALS~~ UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N		5a	**Perchlorate** samples have required headspace?	Y N (NA)	
2	**Custody papers** properly completed (ink, signed)?	(Y) N		5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)	
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N		6	Where did the bottles originate?	(ALS/ROC) CLIENT	
4	Circle: ~~Wet Ice~~ **Dry Ice Gel packs** present?	(Y) N		7	Soil VOA received as: Bulk Encore 5035set	(NA)	

8. Temperature Readings Date: 9/10/15 Time: 1623 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.0						
Correction Factor (°C)	-0.2						
Corrected Temp (°C)	1.8						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by MDS on 9/10/15 at 1624
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 9/16/15 Time: 0808 by: MDS

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

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

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

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 061515 . IBLT

Other Comments:

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