Metalico Aluminum Recovery, Inc.
6223 Thompson Road • Syracuse, NY 13206
P.O. Box 88 • East Syracuse, NY 13057
(315) 463-9500 • Fax (315) 463-9290
Facility #7106946

October 7, 2019

Eric Hausamann, P.E., Project Manager
New York State Department of Environmental Conservation
Remedial Section B, Remedial Bureau E, 12th Floor
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

Re: Former Roth Bros. Smelting Corp. Site
Corrective Action Management Unit (CAMU)
6223 Thompson Road, DeWitt, New York
Consent Order C7-0001-94-10

Dear Mr. Hausamann:

Enclosed please find one copy of the Corrective Action Management Unit (CAMU) Groundwater Performance Monitoring Report for the June 2019 annual monitoring event. The report has been copied electronically to a CD as requested.

Barton & Loguidice, D.P.C. (B&L) prepared the report. The B&L technical contact is Jeff Reed and you may contact Mr. Reed directly if you have any questions regarding the report or any of the attached data.

Sincerely,

METALICO ALUMINUM RECOVERY, INC.

Ginny Hopkins
EH&S Manager

JRT/GH/akg
Enclosure
ec: Harry D. Warner, P.E. NYSDEC Region 7 (w/enclosure)
Margaret Sheen, Esq. NYSDEC Region 7(w/enclosure)

Groundwater Performance Monitoring Report

Roth Bros. Smelting Corp.
Corrective Action Management Unit (CAMU)

East Syracuse, Onondaga County, New York

Prepared for

Metalico Aluminum Recovery, Inc.

6223 Thompson Road
P.O. Box 88
East Syracuse, New York 13057

June 2019 Sampling

Barton&Loguidice

Roth Bros. Smelting Corp.
Corrective Action Management Unit (CAMU)
East Syracuse, Onondaga County, New York

Groundwater Performance Monitoring Report

June 2019 Sampling

Prepared for

Metalico Aluminum Recovery, Inc.
6223 Thompson Road
P.O. Box 88
East Syracuse, New York 13057

Prepared by

Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, New York 13088

TABLE OF CONTENTS

1.0 INTRODUCTION

This report presents the results of the June 2019 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 owned by Metalico Syracuse Realty, Inc. (MSR), and Thompson Corners, LLC owns the Plant #1 portion of the Site.

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.

Metalico Aluminum Recovery, Inc. (MARI) currently operates a scrap metal recycling facility and formerly operated a secondary aluminum smelting operation at the MSR portion of the site. MARI discontinued the aluminum smelting operation in October 2015. 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.

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 June 2019 annual monitoring event.

Barton & Loguidice, D.P.C. (B&L) collected samples from the eight (8) monitoring well locations that comprise the CAMU active monitoring network on June 18, 2019. All samples were submitted to ALS Environmental (ALS) in Rochester, New York for analysis.

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 sampling began with 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.

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 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 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 non-dedicated tubing at each location.

Collected samples were placed into clean coolers and kept on ice at 4°C until delivery to the laboratory for analysis.

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

(c) Monitoring Results

Appendix B contains the analytical laboratory reports prepared by ALS Environmental (New York NELAC Laboratory I.D. # 10145). Table 3 provides an historical summary of the analytical groundwater data for this project, including the results of the June 2019 groundwater monitoring. 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 µg/L*
Aroclor 1221	0.09 µg/L*
Aroclor 1232	0.09 µg/L*
Aroclor 1242	0.09 µg/L*
Aroclor 1248	0.09 µg/L*
Aroclor 1254	0.09 µg/L*
Aroclor 1260	0.09 µg/L*
Aroclor 1262	0.09 µg/L*
Aroclor 1268	0.09 µg/L*
Notes: *Limit applies to sum of all Aroclors	

The results of the June 2019 sampling event indicate that the groundwater quality conditions at the CAMU have remained consistent since the last monitoring event and appear to generally correspond with historical groundwater quality data. Monitoring location MW-8R continues to show signs that the well integrity is compromised such that the well should be decommissioned and removed from the CAMU monitoring program. The following sections summarize the analytical data collected during this sampling event:

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

PCBs – During the June 2019 monitoring event the NYSDEC Class GA groundwater standard for PCBs (0.09 µg/L) was exceeded at MW-8R (210 µg/L). Monitoring location MW-8R is a flush mounted surface well which recharges slowly and is located in a high traffic working area of the facility up-gradient of the CAMU. The well is located directly adjacent to a car dismantling area, a

former used engine block storage area, and turnings storage area, and is also near a former facility transformer location. The well seal has been reported as compromised in previous monitoring reports, and the integrity of the well screen has also been reported as a concern based on the inflow of gravel and debris observed in the purge water. MW-8R is also located up-gradient from the CAMU and is not needed as a CAMU monitoring well as B281 is also located up-gradient from the CAMU. Given the concerns with the integrity of MW-8R and its up-gradient location, we recommend that this well be properly pressure grouted, decommissioned and removed from the CAMU monitoring program. During the 2019 sampling event it was noted that a ribbon drain, between MW-8R and the metal turnings storage bays, that leads to an underground collection tank appeared compromised. MARI is planning to reconstruct this ribbon drain in the Fall of 2019 to prevent any potential infiltration of fluids from the storage bays.

No other PCB detections were reported within the remaining monitoring locations for the June 2019 monitoring event.

Specific Conductivity – Monitoring well location MW-8R exhibits elevated specific conductivity results when comparted to other monitoring locations, but the 2019 value continues to demonstrate a reduction of specific conductivity as seen for the past three sampling events. No Class GA standard for specific conductivity is currently established. Historically, salts used in various processes at the plant were stockpiled in a storage bay immediately adjacent to flush mounted MW-8R monitoring well. It is suspected that surface contamination likely infiltrated the flush mounted well in the high traffic area resulting in elevated conductivity readings. Gravel and sediment in the bottom of the well suggest that its integrity has been compromised. As discussed above, we recommend that MW-8R be properly decommissioned and removed from the CAMU monitoring program.

Total & Dissolved Lead – During the June 2019 monitoring event, no monitoring locations exceeded the Class GA standards of 0.025 mg/L for total lead or 0.025 mg/L for dissolved lead. Total and dissolved lead have previously been detected within monitoring locations B290, B402R, and MW-8R as indicated in the historical data included in Table 3.

Total & Dissolved Arsenic – During the June 2019 monitoring event, no monitoring locations exceeded the Class GA standard of 0.025 mg/L for total arsenic. Total arsenic was detected in B402R (0.014 mg/L) and MW-8R (0.018 mg/L), though neither exceeded the groundwater standard. The Class GA standard of 0.025 mg/L for dissolved arsenic was slightly exceeded at MW-8R (0.028 mg/L). Total and dissolved arsenic have been detected at similar

concentrations within MW-8R during each of the last six monitoring events taking place at MW-8R. Arsenic was not detected within any of the remaining monitoring wells during the 2019 sampling events.

FIGURE 1
Groundwater Contour Map

JUNE 2019 GROUNDWATER CONTOUR MAP

METALICO ALUMINUM RECOVERY, INC.
FACILITY NO. 7102372

ONONDAGA COUNTY, NEW YORK
EAST SYRACUSE

Barton & Loguidice

Date	AUGUST 2019
Scale	1" = 125'
Figure Number	1
Project Number	1206.002.007

LEGEND:

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

125' 0 125'
1"=125'

Plotted: Oct 04, 2019 - 2:58PM SYR By: WBG
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\1821000-1821999\1821162\LL\1206002_GW CONTS_JUNE 2019 (ID 1821162).dwg

TABLE 1
CAMU Monitoring Schedule

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
Groundwater Level Data

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	
REFERENCE ELEVATION:	423.39		414.61		410.86		413.54	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
17-Jun-19	418.92	4.47	409.73	4.88	403.40	7.46	407.98	5.56
13-Jun-18	417.32	6.07	409.39	5.22	403.00	7.86	406.27	7.27
28-Jun-17	418.51	4.88	409.60	5.01	403.97	6.89	407.42	6.12
27-Jun-16	416.09	7.30	409.33	5.28	401.80	9.06	404.41	9.13
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**		**MW-8R**	
WELL DEPTH (FT):	12.24		11.26		16.14		10.00	
REFERENCE ELEVATION:	409.44		411.05		410.77		415.30	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
17-Jun-19	407.11	2.33	408.47	2.58	407.46	3.31	411.90	3.40
13-Jun-18	406.12	3.32	407.79	3.26	404.90	5.87	411.68	3.62
28-Jun-17	406.66	2.78	408.03	3.02	406.79	3.98	411.71	3.59
27-Jun-16	405.04	4.40	406.74	4.31	403.89	6.88	411.31	3.99
25-Jun-15	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

TABLE 3
Groundwater Performance Monitoring Data

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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	6.90	350	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	7.04	2300	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	< 0.015	< 0.015	< 0.100	< 0.050	6.60	3200	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	6.90	1070	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	-	-

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	-	-
	Jun-16	**0.034**	< 0.010	< 0.050	< 0.050	7.10	270	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-17	**0.081**	< 0.010	**0.062**	< 0.050	7.02	2800	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	**0.100**	0.014	< 0.050	< 0.050	6.90	2700	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	7.10	2700	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	-	-

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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	7.10	1020	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	6.96	940	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	< 0.015	< 0.015	< 0.010	< 0.010	6.80	990	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	6.90	990	< 0.047	< 0.047	< 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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	6.90	1190	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	7.03	1150	< 0.047	< 0.047	< 0.047	< 0.047	0.063	< 0.047	< 0.047	-	-
	Jul-17	< 0.010	< 0.010	< 0.050	< 0.050	6.99	1140	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-18	< 0.015	< 0.015	< 0.010	< 0.010	6.80	1190	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	6.90	1120	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-

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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	7.70	250	< 0.047	< 0.050	< 0.047	0.082	< 0.047	< 0.047	< 0.047	-	-
	Aug-16	0.010	< 0.015	0.004	< 0.010	7.50	1320	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	7.64	1500	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	0.009	0.008	0.004	< 0.010	7.70	-	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	0.014	< 0.010	< 0.050	< 0.050	7.70	1760	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	-	-

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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	7.10	960	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	0.085	< 0.047	-	-
	Aug-16	< 0.015	< 0.010	< 0.015	< 0.010	7.00	970	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	7.18	900	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	< 0.015	< 0.015	< 0.010	< 0.010	7.10	910	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	7.10	1100	< 0.047	< 0.047	< 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	-	-
	Jun-16	< 0.010	< 0.010	< 0.050	< 0.050	7.00	660	< 0.047	< 0.050	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-17	< 0.010	< 0.010	< 0.050	< 0.050	6.95	430	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	< 0.047	-	-
	Jun-18	< 0.015	< 0.015	0.004	< 0.010	6.90	630	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	-	-
	Jun-19	< 0.010	< 0.010	< 0.050	< 0.050	6.90	430	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	-	-

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	-	-
	Jun-16	**0.039**	**0.036**	< 0.100	< 0.500	6.70	> 20000	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	**130.00**	< 0.24	-	-
	Aug-16	**0.060**	**0.058**	**0.130**	**0.065**	6.70	13100	< 50.00	< 50.00	< 50.00	< 50.00	< 50.00	**76.00**	< 50.00	-	-
	Apr-17	**0.039**	**0.029**	**0.035**	0.015	-	-	< 25.00	< 25.00	< 25.00	< 25.00	< 25.00	**30.00**	< 25.00	-	-
	Jun-17	**0.070**	**0.060**	< 0.050	< 0.050	6.72	14000	< 25.00	< 25.00	< 25.00	< 25.00	< 25.00	**2600.00**	< 25.00	-	-
	Jul-17	**0.038**	**0.037**	0.024	0.004	6.77	13700	< 50.00	< 50.00	< 50.00	< 50.00	< 50.00	**160.00**	< 50.00	-	-
	Jun-18	**0.057**	**0.059**	**0.280**	**0.190**	6.60	6700	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**35.00**	< 0.50	-	-
	Jun-19	0.018	**0.028**	< 0.050	< 0.050	6.70	5500	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	**210**	< 9.4	-	-

APPENDIX A
Field Sampling Data Sheets/
Chain of Custody Record

Barton & Loguidice

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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:	Overcast	Temperature:	65°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	4.47
Measured Well Depth (feet)*:	13.03
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.37

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/17/19
Time: 13:23

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): 4.11
Actual Volume of Water Purged (gallons): 3.00

Did well purge dry? No [ ] Yes [X] < ⅓ bailers
Did well recover? No [ ] Yes [ ] 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: MPS GEC Time: 10 00 Date: 6/18/19

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	1070
Temperature (F)	63.8	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: ____ Time: ____ Date: ____

COMMENTS:

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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:	Overcast	Temperature:	70 °F

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

WATER LEVEL DATA

Static Water Level (feet)*:	4.88
Measured Well Depth (feet)*:	10.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.86

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/17/19
Time: 13:38

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): 2.58
Actual Volume of Water Purged (gallons): 2.25

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

SAMPLING METHOD

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

Sampled by: MPS GEC Time: 10:32 Date: 6/18/19

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.1	Sp. Conductivity (umhos/cm)	2.70
Temperature (F)	66.1	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: ____ Time: ____ Date: ____

COMMENTS:

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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:	Overcast	Temperature:	71°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	7.96
Measured Well Depth (feet)*:	12.54
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.73

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/18/19
Time: 14:43

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): 2.19
Actual Volume of Water Purged (gallons): 1.50

Did well purge dry? No [ ] Yes [X]
Did well recover? No [ ] Yes [ ] 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: MPS GEC Time: 11:41 Date: 6/18/19

SAMPLING DATA

Sample Appearance

Color: ~~Clear~~ Hazy Sediment: ~~None~~ Fine sediment
Odor: (None)

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	990
Temperature (F)	61.5	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: ____ Time: ____ Date: ____

COMMENTS:

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FIELD SAMPLING DATA SHEET

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SITE:	**Metalico - Thompson Road**	**SAMPLE LOCATION:**	**B-401**
CLIENT:	**Metalico Aluminum Recovery, Inc.**	**JOB #:**	**1206.002.007**
Weather Conditions:	Overcast	Temperature:	71°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	~~2.58~~ 3.56
Measured Well Depth (feet)*:	11.34
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	0.93 ~~1.40~~

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/18/19
Time: ~~13:53~~ 14:26

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): ~~4.20~~ 2.76
Actual Volume of Water Purged (gallons): ~~3.75~~ 1.50
Did well purge dry? No [ ] Yes [X] 1 1/2 bailers
Did well recover? No [ ] Yes [ ] 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: MPS GEC Time: 11:25 Date: 6/18/19

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	6.9	Sp. Conductivity (umhos/cm)	1120
Temperature (F)	61.8	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: ____ Time: ____ Date: ____

COMMENTS:

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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:	71°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	2.33
Measured Well Depth (feet)*:	12.24
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.59

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/17/19
Time: 15:12

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): 4.77
Actual Volume of Water Purged (gallons): 2.50

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

SAMPLING METHOD

Equipment:

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

Sampled by: MPS GEC Time: 12:18 Date: 6/18/19

SAMPLING DATA

Sample Appearance

Color: Hazy Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.07	Sp. Conductivity (umhos/cm)	1760
Temperature (F)	60.0	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: ____ Time: ____ Date: ____

COMMENTS:

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FIELD SAMPLING DATA SHEET

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

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

WATER LEVEL DATA

Static Water Level (feet)*:	3.58
Measured Well Depth (feet)*:	11.26
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.39 ~~1.40~~

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/7/19
Time: 13:53

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): 4.17
Actual Volume of Water Purged (gallons): 2.75

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: MPS GLC Time: 10:48 Date: 6/10/19

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.1	Sp. Conductivity (umhos/cm)	1100
Temperature (F)	63.2	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: _____ 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:	Partly Cloudy	Temperature:	70°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	3.31
Measured Well Depth (feet)*:	16.14
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	2.05

*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 6/18/19
Time: 14:58

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): 6.15
Actual Volume of Water Purged (gallons): 6.25
Did well purge dry? No [X] 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: MPS GEC Time: 12:05 Date: 6/18/19

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: Sulphur

Field Measured Parameters

pH (Standard Units)	6.91	Sp. Conductivity (umhos/cm)	1130
Temperature (F)	62.9	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: ____ 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:	71°F

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

WATER LEVEL DATA

Static Water Level (feet)*:	3.40
Measured Well Depth (feet)*:	10.00
Well Casing Diameter (inches):	2
Calculated Volume in Well Casing (gallons):	1.06

*depth from measuring point

Measuring Point: Top of Riser
Measured by: _____
Date: _____
Time: 15:31

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): 3.18
Actual Volume of Water Purged (gallons): 2.50

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: MPS GEC Time: 12:50 Date: 6/18/19

SAMPLING DATA

Sample Appearance

Color: Hazy Sediment: None
Odor: Chemical

Field Measured Parameters

pH (Standard Units)	6.7	Sp. Conductivity (umhos/cm)	5.50
Temperature (F)	67.2	Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	

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

Samples Delivered to: _____ 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:	Overcast	Temperature:	65 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: MPS GEC Time: ~~04:00~~ 09:45 Date: 06/18/19

SAMPLING DATA

Sample Appearance

Color: - Clear Sediment: - None

Odor: - None

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: Time: Date:

COMMENTS:

Rev. 4/09 (MPS)

Barton & Loguidice

Engineers • Environmental Scientists • Planners • Landscape Architects

Calibration Record

Project No: 1206.002.007 Date: 6/18/19

Calibrated By: MPS GEC Time: 09:30

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	
240 mV		(+/- 5% at 25°C, 209 - 231 mV)	Pass / Fail
or			
YSI Zobell Soln		(Refer to YSI calibration table)	

Turbidimeter Model: LaMotte 2020we

Standard Solution	Calibration Reading	Acceptable Range	
0.0	Blank	Blank 0.0 NTU	Pass / Fail
1.0		(0.5-1.5 NTU)	
10.0		(8-12 NTU)	

Dissolve Oxygen Meter Model: YSI EcoSense

Saturated Air	Air Pressure (MB)	Calibration Reading	Acceptable Range	
100%			(+/- 5.0% Error, 95-105%)	Pass / Fail

Comments: _____

APPENDIX B
Analytical Laboratory Reports
(ALS Environmental)

July 08, 2019 Service Request No:R1905635

Mr. Matthew Strodel
Barton & Loguidice, PC
443 Electronics Parkway
Liverpool, NY 13088

Laboratory Results for: CAMU

Dear Mr.Strodel,

Enclosed are the results of the sample(s) submitted to our laboratory June 18, 2019
For your reference, these analyses have been assigned our service request number **R1905635.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, 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), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

CC: Ginny Hopkins

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

Client: Metalico Aluminum Recovery
Project: CAMU
Sample Matrix: Water

Service Request: R1905635
Date Received: 06/18/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty water samples were received for analysis at ALS Environmental on 06/18/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivoa GC:

Method 8082A, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 642170: The control limits for one or more surrogates in the sample are not applicable. The analysis of the sample required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

Method 8082A, 06/28/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 06/28/2019: The lower control limit for the spike recovery of the Laboratory Control Sample (LCS) was exceeded for one or more analyte. However, the Duplicate Laboratory Control Sample (DLCS) passed limits. Matrix spike and matrix spike duplicate also passed limits. There were no detections of the analyte(s) in the associated field samples. The analytes affected are flagged in the LCS Summary.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 07/08/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: B-402R			Lab ID: R1905635-009			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Arsenic, Total	14			10	ug/L	6010C

CLIENT ID: MW-8R			Lab ID: R1905635-015			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Arsenic, Total	18			10	ug/L	6010C
Aroclor 1254	210			9.4	ug/L	8082A

CLIENT ID: MW-8R Diss			Lab ID: R1905635-016			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Arsenic, Dissolved	28			10	ug/L	6010C

CLIENT ID: Dupe-X			Lab ID: R1905635-019			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Arsenic, Total	15			10	ug/L	6010C
Aroclor 1254	170			10	ug/L	8082A

CLIENT ID: Dupe-X Diss			Lab ID: R1905635-020			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Arsenic, Dissolved	28			10	ug/L	6010C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Metalico Aluminum Recovery **Service Request:**R1905635
Project: CAMU/1206.006.008

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1905635-001	B-281	6/18/2019	1000
R1905635-002	B-281 Diss	6/18/2019	1000
R1905635-003	B-290	6/18/2019	1032
R1905635-004	B-290 Diss	6/18/2019	1032
R1905635-005	B-291	6/18/2019	1141
R1905635-006	B-291 Diss	6/18/2019	1141
R1905635-007	B-401	6/18/2019	1125
R1905635-008	B-401 Diss	6/18/2019	1125
R1905635-009	B-402R	6/18/2019	1218
R1905635-010	B-402R Diss	6/18/2019	1218
R1905635-011	B-403	6/18/2019	1048
R1905635-012	B-403 Diss	6/18/2019	1048
R1905635-013	B-404	6/18/2019	1205
R1905635-014	B-404 Diss	6/18/2019	1205
R1905635-015	MW-8R	6/18/2019	1258
R1905635-016	MW-8R Diss	6/18/2019	1258
R1905635-017	Equipment Blank	6/18/2019	0945
R1905635-018	Equipment Blank Diss	6/18/2019	0945
R1905635-019	Dupe-X	6/18/2019	
R1905635-020	Dupe-X Diss	6/18/2019	

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR# _____

T051259

ALS Environmental

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 / FAX (585) 288-8475
www.alsglobal.com

014, 015, 016, 017, 018, 019, 020, 021, 022, 023

Project Name: CAMU
Project Number: 1206.006.007
Report To: Matt Strodel ~~Dave Henry~~
Company / Address: Barton & Loguidice, PC ~~11 Centre Park Suite 205~~ 443 Electronics Pkwy
~~Rochester NY, 14614~~ Liverpool NY 13088
Phone # ~~585-325-7199~~ 315-457-3520 FAX #
Sampler Signature: Matt Strodel Sampler Printed Name: Matt Strodel

	CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix	NUMBER OF CONTAINERS	7D 8082A / PCB LL	180D 6010C / As D	6010C / As T	6010C / Pb D	6010C / Pb T	Remarks
1.	B-281		6/18/19	10:00	Liquid	8	X	X	X	X	X	MS/MSD
2.	B-290		6/18/19	10:32	Liquid	4	X	X	X	X	X	
3.	B-291		6/18/19	11:41	Liquid	4	X	X	X	X	X	
4.	B-401		6/18/19	11:25	Liquid	4	X	X	X	X	X	
5.	B-402R		6/18/19	12:18	Liquid	4	X	X	X	X	X	
6.	B-403		6/18/19	10:48	Liquid	4	X	X	X	X	X	
7.	B-404		6/18/19	12:05	Liquid	4	X	X	X	X	X	
8.	MW-8R		6/18/19	12:58	Liquid	4	X	X	X	X	X	
9.	Equipment Blank		6/18/19	9:45	Liquid	4	X	X	X	X	X	
10.	Dupe-X		6/18/19	—	Liquid	4	X	X	X	X	X	

Special Instructions/Comments:

Turnaround Requirements
___ RUSH (SURCHARGES APPLY)
X Standard
Standard
REQUESTED FAX DATE
Standard
Requested Report Date

Report Requirements
___ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Cilibration Summaries
___ IV. Data Validation Report with Raw Data
EData ___Yes X No

Invoice Information
P.O.# _____
Bill To: 1206.002.007

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: Matt Strodel	Signature: Gary Bohan	Signature: Gary Bohan	Signature: Gregory O. Esmerian	Signature:	Signature:
Printed Name: Matt Strodel	Printed Name: Gary Bohan	Printed Name: Gary Bohan	Printed Name: Gregory O. Esmerian	Printed Name:	Printed Name:
Firm: B&L	Firm: ALS	Firm: ALS	Firm: ALS	Firm:	Firm:
Date/Time: 6/18/19 13:55	Date/Time: 6/18/19 1420	Date/Time: 6/18/19 1605	Date/Time: 6-18-19 16:05	Date/Time:	Date/Time:

R1905635 5
Barton & Loguidice, PC
CAMU

R1905635 5
Barton & Loguidice, PC
CAMU

Cooler Receipt and Preservation Check Form

Project/Client Barton Syracuse Folder Number .

Cooler received on 6/8/19 by: Rec

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: 6/8/19 Time: 1605 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.9	5.6	4.8				
Correction Factor (°C)	+0.3	+0.3	+0.3				
Corrected Temp (°C)	5.2	3.9	5.1				
Temp from:Type of bottle	Temp Blank		Sample Bottle				
Within 0-6°C?	(Y) N	(Y) N	(Y) N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	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 (described below) Same Day Rule

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

All samples held in storage location: Fridge by Rec on 6/8/19 at 1620
5035 samples placed in storage location: by on at

Cooler Breakdown/Preservation Check**: Date: 6/19/19 Time: 1300 by: AR

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? ~~YES~~ (NO) date/time
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	220617	HNO_3	✓		1118061					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 19-05-07, 042219-1DIC
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO.	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: AR
PC Secondary Review:

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

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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 ñNotesò 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 ñimmediateò 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% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs 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 https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Metalico Aluminum Recovery **Service Request:** R1905635
Project: CAMU/1206.006.008

Sample Name: B-281 **Date Collected:** 06/18/19
Lab Code: R1905635-001 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-281 Diss **Date Collected:** 06/18/19
Lab Code: R1905635-002 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN

Sample Name: B-290 **Date Collected:** 06/18/19
Lab Code: R1905635-003 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-290 Diss **Date Collected:** 06/18/19
Lab Code: R1905635-004 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Service Request: R1905635

Sample Name: B-291
Lab Code: R1905635-005
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-291 Diss
Lab Code: R1905635-006
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: B-401
Lab Code: R1905635-007
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-401 Diss
Lab Code: R1905635-008
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Service Request: R1905635

Sample Name: B-402R
Lab Code: R1905635-009
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-402R Diss
Lab Code: R1905635-010
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: B-403
Lab Code: R1905635-011
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-403 Diss
Lab Code: R1905635-012
Sample Matrix: Water
Date Collected: 06/18/19
Date Received: 06/18/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Metalico Aluminum Recovery **Service Request:** R1905635
Project: CAMU/1206.006.008

Sample Name: B-404 **Date Collected:** 06/18/19
Lab Code: R1905635-013 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: B-404 Diss **Date Collected:** 06/18/19
Lab Code: R1905635-014 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: MW-8R **Date Collected:** 06/18/19
Lab Code: R1905635-015 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: MW-8R Diss **Date Collected:** 06/18/19
Lab Code: R1905635-016 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Metalico Aluminum Recovery **Service Request:** R1905635
Project: CAMU/1206.006.008

Sample Name: Equipment Blank **Date Collected:** 06/18/19
Lab Code: R1905635-017 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: Equipment Blank Diss **Date Collected:** 06/18/19
Lab Code: R1905635-018 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: Dupe-X **Date Collected:** 06/18/19
Lab Code: R1905635-019 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8082A	KSERCU	AMOSES

Sample Name: Dupe-X Diss **Date Collected:** 06/18/19
Lab Code: R1905635-020 **Date Received:** 06/18/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

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.

Sample Results

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Semivolatile Organic Compounds by GC

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:00
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-281	**Units:**	ug/L
Lab Code:	R1905635-001	**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	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1221	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1232	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1242	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1248	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1254	0.051 U	0.051	1	06/28/19 12:24	6/25/19	
Aroclor 1260	0.051 U	0.051	1	06/28/19 12:24	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	35	10 - 125	06/28/19 12:24	
Tetrachloro-m-xylene	64	18 - 126	06/28/19 12:24	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:32
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-290	**Units:**	ug/L
Lab Code:	R1905635-003	**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	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1221	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1232	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1242	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1248	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1254	0.051 U	0.051	1	06/28/19 13:23	6/25/19	
Aroclor 1260	0.051 U	0.051	1	06/28/19 13:23	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 125	06/28/19 13:23	
Tetrachloro-m-xylene	60	18 - 126	06/28/19 13:23	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:41
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-291	**Units:**	ug/L
Lab Code:	R1905635-005	**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	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1221	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1232	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1242	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1248	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1254	0.047 U	0.047	1	06/28/19 13:43	6/25/19	
Aroclor 1260	0.047 U	0.047	1	06/28/19 13:43	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	21	10 - 125	06/28/19 13:43	
Tetrachloro-m-xylene	43	18 - 126	06/28/19 13:43	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:25
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-401	**Units:**	ug/L
Lab Code:	R1905635-007	**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	06/28/19 14:02	6/25/19	
Aroclor 1221	0.050 U	0.050	1	06/28/19 14:02	6/25/19	
Aroclor 1232	0.050 U	0.050	1	06/28/19 14:02	6/25/19	
Aroclor 1242	0.050 U	0.050	1	06/28/19 14:02	6/25/19	
Aroclor 1248	0.050 U	0.050	1	06/28/19 14:02	6/25/19	
Aroclor 1254	0.050 U	0.050	1	06/28/19 14:02	6/25/19	
Aroclor 1260	0.050 U	0.050	1	06/28/19 14:02	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	24	10 - 125	06/28/19 14:02	
Tetrachloro-m-xylene	47	18 - 126	06/28/19 14:02	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:18
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-402R	**Units:**	ug/L
Lab Code:	R1905635-009	**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	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1221	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1232	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1242	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1248	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1254	0.051 U	0.051	1	06/28/19 14:22	6/25/19	
Aroclor 1260	0.051 U	0.051	1	06/28/19 14:22	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	16	10 - 125	06/28/19 14:22	
Tetrachloro-m-xylene	50	18 - 126	06/28/19 14:22	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:48
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-403	**Units:**	ug/L
Lab Code:	R1905635-011	**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	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1221	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1232	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1242	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1248	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1254	0.047 U	0.047	1	06/28/19 15:02	6/25/19	
Aroclor 1260	0.047 U	0.047	1	06/28/19 15:02	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	27	10 - 125	06/28/19 15:02	
Tetrachloro-m-xylene	50	18 - 126	06/28/19 15:02	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:05
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-404	**Units:**	ug/L
Lab Code:	R1905635-013	**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	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1221	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1232	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1242	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1248	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1254	0.051 U	0.051	1	06/28/19 15:21	6/25/19	
Aroclor 1260	0.051 U	0.051	1	06/28/19 15:21	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	31	10 - 125	06/28/19 15:21	
Tetrachloro-m-xylene	61	18 - 126	06/28/19 15:21	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:58
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	MW-8R	**Units:**	ug/L
Lab Code:	R1905635-015	**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	9.4 U	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1221	9.4 U	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1232	9.4 U	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1242	9.4 U	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1248	9.4 U	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1254	**210**	9.4	200	07/03/19 16:22	6/25/19	
Aroclor 1260	9.4 U	9.4	200	07/03/19 16:22	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	0 *	10 - 125	07/03/19 16:22	D
Tetrachloro-m-xylene	0 *	18 - 126	07/03/19 16:22	D

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 09:45
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Equipment Blank	**Units:**	ug/L
Lab Code:	R1905635-017	**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	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1221	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1232	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1242	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1248	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1254	0.051 U	0.051	1	07/03/19 13:02	6/25/19	
Aroclor 1260	0.051 U	0.051	1	07/03/19 13:02	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	77	10 - 125	07/03/19 13:02	
Tetrachloro-m-xylene	87	18 - 126	07/03/19 13:02	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Dupe-X	**Units:**	ug/L
Lab Code:	R1905635-019	**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	10 U	10	200	07/03/19 16:42	6/25/19	
Aroclor 1221	10 U	10	200	07/03/19 16:42	6/25/19	
Aroclor 1232	10 U	10	200	07/03/19 16:42	6/25/19	
Aroclor 1242	10 U	10	200	07/03/19 16:42	6/25/19	
Aroclor 1248	10 U	10	200	07/03/19 16:42	6/25/19	
Aroclor 1254	**170**	10	200	07/03/19 16:42	6/25/19	
Aroclor 1260	10 U	10	200	07/03/19 16:42	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	0 *	10 - 125	07/03/19 16:42	D
Tetrachloro-m-xylene	0 *	18 - 126	07/03/19 16:42	D

Metals

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:00
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-281	**Basis:**	NA
Lab Code:	R1905635-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	06/24/19 20:47	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 20:47	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:00
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-281 Diss	**Basis:**	NA
Lab Code:	R1905635-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10	U	ug/L	10	1	06/28/19 09:30	06/25/19	
Lead, Dissolved	6010C	50	U	ug/L	50	1	06/28/19 09:30	06/25/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:32
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-290	**Basis:**	NA
Lab Code:	R1905635-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	06/24/19 21:06	06/20/19	
Lead, Total	6010C	50	U	ug/L	50	1	06/24/19 21:06	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:32
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-290 Diss	**Basis:**	NA
Lab Code:	R1905635-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10 U	ug/L	10	1	06/24/19 21:09	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 21:09	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:41
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-291	**Basis:**	NA
Lab Code:	R1905635-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	06/24/19 21:19	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 21:19	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:41
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-291 Diss	**Basis:**	NA
Lab Code:	R1905635-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10	U	ug/L	10	1	06/24/19 21:22	06/20/19	
Lead, Dissolved	6010C	50	U	ug/L	50	1	06/24/19 21:22	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:25
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-401	**Basis:**	NA
Lab Code:	R1905635-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	06/24/19 21:26	06/20/19	
Lead, Total	6010C	50	U	ug/L	50	1	06/24/19 21:26	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 11:25
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-401 Diss	**Basis:**	NA
Lab Code:	R1905635-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10 U	ug/L	10	1	06/24/19 21:29	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 21:29	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:18
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-402R	**Basis:**	NA
Lab Code:	R1905635-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	**14**	ug/L	10	1	06/26/19 11:04	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 21:32	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:18
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-402R Diss	**Basis:**	NA
Lab Code:	R1905635-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10	U	ug/L	10	1	06/24/19 21:35	06/20/19	
Lead, Dissolved	6010C	50	U	ug/L	50	1	06/24/19 21:35	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:48
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-403	**Basis:**	NA
Lab Code:	R1905635-011		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	06/24/19 21:39	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 21:39	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 10:48
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-403 Diss	**Basis:**	NA
Lab Code:	R1905635-012		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10 U	ug/L	10	1	06/24/19 21:42	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 21:42	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:05
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-404	**Basis:**	NA
Lab Code:	R1905635-013		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	06/24/19 21:45	06/20/19	
Lead, Total	6010C	50	U	ug/L	50	1	06/24/19 21:45	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:05
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	B-404 Diss	**Basis:**	NA
Lab Code:	R1905635-014		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10 U	ug/L	10	1	06/24/19 21:48	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 21:48	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:58
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	MW-8R	**Basis:**	NA
Lab Code:	R1905635-015		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	**18**	ug/L	10	1	06/26/19 11:07	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 21:58	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 12:58
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	MW-8R Diss	**Basis:**	NA
Lab Code:	R1905635-016		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	**28**	ug/L	10	1	06/24/19 22:01	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 22:01	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 09:45
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Equipment Blank	**Basis:**	NA
Lab Code:	R1905635-017		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	06/24/19 22:05	06/20/19	
Lead, Total	6010C	50	U	ug/L	50	1	06/24/19 22:05	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19 09:45
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Equipment Blank Diss	**Basis:**	NA
Lab Code:	R1905635-018		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10	U	ug/L	10	1	06/24/19 22:08	06/20/19	
Lead, Dissolved	6010C	50	U	ug/L	50	1	06/24/19 22:08	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Dupe-X	**Basis:**	NA
Lab Code:	R1905635-019		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	**15**	ug/L	10	1	06/24/19 22:11	06/20/19	
Lead, Total	6010C	50 U	ug/L	50	1	06/24/19 22:11	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19
Sample Matrix:	Water	**Date Received:**	06/18/19 16:05
Sample Name:	Dupe-X Diss	**Basis:**	NA
Lab Code:	R1905635-020		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	**28**	ug/L	10	1	06/24/19 22:14	06/20/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/24/19 22:14	06/20/19	

QC Summary Forms

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Semivolatile Organic Compounds by GC

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QA/QC Report

Client: Metalico Aluminum Recovery **Service Request:** R1905635
Project: CAMU/1206.006.008
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Low Level Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl 10-125	Tetrachloro-m-xylene 18-126
B-281	R1905635-001	35	64
B-290	R1905635-003	25	60
B-291	R1905635-005	21	43
B-401	R1905635-007	24	47
B-402R	R1905635-009	16	50
B-403	R1905635-011	27	50
B-404	R1905635-013	31	61
MW-8R	R1905635-015	0*	0*
Equipment Blank	R1905635-017	77	87
Dupe-X	R1905635-019	0*	0*
Method Blank	RQ1906332-03	65	51
Lab Control Sample	RQ1906332-04	42	33
Duplicate Lab Control Sample	RQ1906332-05	69	54
B-281 MS	RQ1906332-01	36	62
B-281 DMS	RQ1906332-02	56	67

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QA/QC Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	06/18/19
Sample Matrix:	Water	**Date Received:**	06/18/19
		Date Analyzed:	06/28/19
		Date Extracted:	06/25/19

Duplicate Matrix Spike Summary
Low Level Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	B-281	**Units:**	ug/L
Lab Code:	R1905635-001	**Basis:**	NA
Analysis Method:	8082A		
Prep Method:	EPA 3510C		

		Matrix Spike RQ1906332-01			**Duplicate Matrix Spike** RQ1906332-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	0.038 U	0.379	0.510	74	0.350	0.485	72	13-146	8	30
Aroclor 1260	0.026 U	0.274	0.510	54	0.325	0.485	67	10-135	17	30

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.

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1906332-03	**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	06/28/19 11:24	6/25/19	
Aroclor 1221	0.050 U	0.050	1	06/28/19 11:24	6/25/19	
Aroclor 1232	0.050 U	0.050	1	06/28/19 11:24	6/25/19	
Aroclor 1242	0.050 U	0.050	1	06/28/19 11:24	6/25/19	
Aroclor 1248	0.050 U	0.050	1	06/28/19 11:24	6/25/19	
Aroclor 1254	0.050 U	0.050	1	06/28/19 11:24	6/25/19	
Aroclor 1260	0.050 U	0.050	1	06/28/19 11:24	6/25/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	65	10 - 125	06/28/19 11:24	
Tetrachloro-m-xylene	51	18 - 126	06/28/19 11:24	

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QA/QC Report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Sample Matrix: Water

Service Request: R1905635
Date Analyzed: 06/28/19

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

Units:ug/L
Basis:NA

			Lab Control Sample RQ1906332-04			Duplicate Lab Control Sample RQ1906332-05				
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	8082A	0.176	0.500	35	0.316	0.500	63	24-119	57*	30
Aroclor 1260	8082A	0.192	0.500	38 *	0.329	0.500	66	43-124	53*	30

Metals

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1905635-MB1		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10	U	ug/L	10	1	06/24/19 20:40	06/20/19	
Arsenic, Total	6010C	10	U	ug/L	10	1	06/24/19 20:40	06/20/19	
Lead, Dissolved	6010C	50	U	ug/L	50	1	06/24/19 20:40	06/20/19	
Lead, Total	6010C	50	U	ug/L	50	1	06/24/19 20:40	06/20/19	

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Analytical Report

Client:	Metalico Aluminum Recovery	**Service Request:**	R1905635
Project:	CAMU/1206.006.008	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1905635-MB2		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Dissolved	6010C	10 U	ug/L	10	1	06/28/19 09:24	06/25/19	
Lead, Dissolved	6010C	50 U	ug/L	50	1	06/28/19 09:24	06/25/19	

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QA/QC Report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Sample Matrix: Water

Service Request:R1905635
Date Collected:06/18/19
Date Received:06/18/19
Date Analyzed:6/24/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B-281
Lab Code: R1905635-001

Units:ug/L
Basis:NA

			Matrix Spike R1905635-001MS			Duplicate Matrix Spike R1905635-001DMS					
Analyte Name	**Method**	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Total	6010C	4 U	39	40	99	39	40	99	75-125	<1	20
Lead, Total	6010C	3 U	531	500	106	530	500	106	75-125	<1	20

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QA/QC Report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Sample Matrix: Water

Service Request:R1905635
Date Collected:06/18/19
Date Received:06/18/19
Date Analyzed:6/28/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B-281 Diss
Lab Code: R1905635-002

Units:ug/L
Basis:NA

			Matrix Spike R1905635-002MS			Duplicate Matrix Spike R1905635-002DMS					
Analyte Name	**Method**	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Dissolved	6010C	4 U	34	40	86	39	40	98	75-125	13	20
Lead, Dissolved	6010C	3 U	546	500	109	540	500	108	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.

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QA/QC Report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Sample Matrix: Water

Service Request: R1905635
Date Analyzed: 06/24/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1905635-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	6010C	42	40	105	80-120
Arsenic, Total	6010C	42	40	105	80-120
Lead, Dissolved	6010C	546	500	109	80-120
Lead, Total	6010C	546	500	109	80-120

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QA/QC Report

Client: Metalico Aluminum Recovery
Project: CAMU/1206.006.008
Sample Matrix: Water

Service Request: R1905635
Date Analyzed: 06/28/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1905635-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	6010C	45	40	112	80-120
Lead, Dissolved	6010C	547	500	109	80-120

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