

**GROUNDWATER PERFORMANCE  
MONITORING REPORT**

**June 2018 Sampling**

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

**Prepared For:  
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## Table of Contents

	<b>Page</b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>2.0 CAMU GROUNDWATER PERFORMANCE MONITORING</b>	<b>2</b>
<b>2.1 Monitoring Well Inspection</b>	<b>2</b>
<b>2.2 Groundwater Monitoring Work</b>	<b>3</b>
<b>(a) Groundwater Contour Map</b>	<b>3</b>
<b>(b) Groundwater Sampling &amp; Analysis</b>	<b>3</b>
<b>(c) Monitoring Results</b>	<b>3</b>

### List of Figures

Figure 1 Groundwater Contour Map

### List of Tables

Table 1 CAMU Monitoring Schedule

Table 2 Groundwater Level Data

Table 3 Groundwater Performance Monitoring Data

### List of Appendices

Appendix A Field Sampling Data Sheets/Chain of Custody Record

Appendix B Analytical Laboratory Reports  
(ALS Environmental and TestAmerica Laboratories)

## 1.0 INTRODUCTION

This report presents the results of the June 2018 groundwater monitoring performed at the Corrective Action Management Unit (CAMU) located at the former Wabash Aluminum Alloys, LLC (Wabash) facility located at 6223 Thompson Road, East Syracuse, Onondaga County, New York (Site). The Plant #2 portion of the site is now owned by Metalico Syracuse Realty, Inc. (MSR), and Thompson Corners, LLC owns the Plant #1 portion of the Site.

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 2018 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 30, 2017. 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 new 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 (New York NELAC Laboratory I.D. # 10145) and TAL (New York NELAC Laboratory I.D. # 10026). Table 3 provides an historical summary of the analytical groundwater data for this project, including the results of the June 2018 groundwater monitoring. Data are highlighted, as appropriate, to indicate detected concentrations that exceed the following NYSDEC Class GA Groundwater Standards:

<u>Parameter</u>	<u>Class GA Standard</u>
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 2018 sampling event indicate that the groundwater quality conditions at the CAMU have remained generally consistent since the last monitoring event and appear to correspond with historical groundwater quality data. 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 2018 monitoring event the NYSDEC Class GA groundwater standard for PCBs (0.09 µg/L) was exceeded at MW-8R (35.0 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 upgradient of the CAMU. The well is located directly adjacent to a car dismantling area, a former used engine block storage area, 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.

No other PCB detections were reported within the remaining monitoring locations for the June 2018 monitoring event.

**Specific Conductivity** – Monitoring location MW-8R continued to exhibit elevated specific conductivity result during the June 2018 monitoring event (6700 µS/cm), although 2018 represents the lowest reported concentration since the June 2010 monitoring event. 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 event monitoring location MW-8R exceeded the Class GA standards of 0.025 mg/L for total lead (0.280 µg/L) and dissolved lead (0.190 µg/L) the was exceeded at monitoring location MW-8R (0.280 mg/L). Total and dissolved lead have previously been detected within MW-8R as indicated in the historical data included in Table 3. B402R demonstrated total lead at a concentration (0.004 µg/L) below the standards, and no dissolved lead was detected. The remaining monitoring locations did not exhibit any total or dissolved lead detections during the June 2018 monitoring event.

**Total & Dissolved Arsenic** – The Class GA standard of 0.025 mg/L for total arsenic was exceeded at monitoring locations B290 during the June event (0.100 mg/L). Dissolved arsenic was detected within B290 (0.014 mg/L) at a concentration below the Class GA standard. Monitoring well B402R demonstrated detections of total arsenic (0.009 mg/L) and dissolved arsenic (0.008 mg/L) at concentrations below the Class GA standard. MW-8R demonstrated detections of total arsenic (0.057 mg/L) and dissolved arsenic (0.059 mg/L) in excess of Class GA standard. Total and dissolved arsenic have been detected at similar concentrations within MW-8R during each of the last five monitoring events taking place at MW-8R. Arsenic was not detected within any of the remaining monitoring wells during the 2018 sampling events.

## **Figures**



## **Tables**

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

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



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

Page 1 of 2

Monitoring Well	<b>B281</b>		<b>B290</b>		<b>B291</b>		<b>B401</b>	
WELL DEPTH (FT):	13.03		10.26		12.54		13.03	
REFERNCE ELEVATION:	423.39		414.61		410.86		413.54	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
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**

Page 2 of 2

Monitoring Well	B402R		B403		B404		8R	
WELL DEPTH (FT):	12.24		11.26		16.14		10.00	
REFERNCE ELEVATION:	409.44		411.05		410.77		415.30	
DATE	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL	ELEVATION	SWL
28-Jun-17	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**  
**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	-	-	

# **Appendix A**



FIELD SAMPLING DATA SHEET

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: OVERCAST

SAMPLE LOCATION: B-281 (MS/MSD)
JOB #: 1206.002.007
Temperature: 75 F

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

WATER LEVEL DATA

Table with 2 columns: Parameter and Value. Rows include Static Water Level (feet)\*: 6.07, Measured Well Depth (feet)\*: 13.03, Well Casing Diameter (inches): 2, Calculated Volume in Well Casing (gallons): 1.11

\*depth from measuring point

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/13/18
Time: 13:05

PURGING METHOD

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

Calculated Volume Of Water To Be Purged (gallons): 3.33
Actual Volume of Water Purged (gallons): 2.50

Did well purge dry? No [ ] Yes [X] < 1/4 buckets
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 Time: 10:45 Date: 06/13/18

SAMPLING DATA

Sample Appearance: Clear
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

Table with 4 columns: Parameter, Value 1, Value 2, Value 3. Rows include pH (Standard Units): 6.6, Sp. Conductivity (umhos/cm): 320, Temperature (F): 58.5, 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: TAL Time: 15:25 Date: 06/13/18

COMMENTS:



FIELD SAMPLING DATA SHEET

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-290
JOB #: 1206.002.007
Temperature: 75F

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

WATER LEVEL DATA

Table with 2 columns: Parameter and Value. Rows include Static Water Level (feet)\*: 5.22, Measured Well Depth (feet)\*: 10.26, Well Casing Diameter (inches): 2, Calculated Volume in Well Casing (gallons): 0.81.

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/13/18
Time: 13:30

\*depth from measuring point

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): 2.43

Actual Volume of Water Purged (gallons): 1.25

Did well purge dry? No [ ], Yes [X] <1/4 barrels
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 Time: 11:20 Date: 06/13/18

SAMPLING DATA

Sample Appearance
Color: Orange/None Sediment: None
Odor: None

Field Measured Parameters

Table with 4 columns: Parameter, Value, Parameter, Value. Rows include pH (Standard Units): 6.9, Sp. Conductivity (umhos/cm): 270, Temperature (F): 63.5, 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: TAL Time: 15:25 Date: 06/13/18

COMMENTS:

Heavy iron stained (orange) purge water



**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road SAMPLE LOCATION: B-403  
 CLIENT: Metalico Aluminum Recovery, Inc. JOB #: 1206.002.007  
 Weather Conditions: Overcast Temperature: 75°F  
 SAMPLE TYPE: Groundwater  Surface Water  Other (specify): \_\_\_\_\_  
 Sediment  Leachate

**WATER LEVEL DATA**

Static Water Level (feet)*:	<u>3.26</u>
Measured Well Depth (feet)*:	<u>11.26</u>
Well Casing Diameter (inches):	<u>2</u>
Calculated Volume in Well Casing (gallons):	<u>1.28</u>

Measuring Point: Top of Riser  
 Measured by: MPS  
 Date: 06/12/18  
 Time: 13:50

\*depth from measuring point

**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): 3.84

Actual Volume of Water Purged (gallons): 1.50

Did well purge dry? No  Yes  < 1/4 bakers  
 Did well recover? No  Yes  Recovery Time: Overnight

**SAMPLING METHOD**

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

Sampled by: MPS Time: 1:40 Date: 06/13/18

**SAMPLING DATA**

Sample Appearance  
 Color: Clear Sediment: None  
 Odor: None

**Field Measured Parameters**

pH (Standard Units)	<u>7.1</u>	Sp. Conductivity (umhos/cm)	<u>910</u>
Temperature (F)	<u>58.8</u>	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: TAL Time: 15:25 Date: 06/13/18

**COMMENTS:**



FIELD SAMPLING DATA SHEET

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: B-401
JOB #: 1206.002.007
Temperature: 75°F

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

WATER LEVEL DATA

Table with 2 columns: Parameter and Value. Rows include Static Water Level (7.27), Measured Well Depth (11.34), Well Casing Diameter (2), and Calculated Volume in Well Casing (0.65).

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/12/18
Time: 14:14

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): 1.95
Actual Volume of Water Purged (gallons): 0.80

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 Time: 12:19 Date: 06/13/18

SAMPLING DATA

Sample Appearance: Clear
Color: None Sediment: None
Odor: None

Field Measured Parameters

Table with 4 columns: Parameter, Value, Parameter, Value. Rows include pH (6.8), Temperature (59.8), Sp. Conductivity (1190), and Dissolved Oxygen.

Samples Collected (Number/Type): 4 bottles - TRD-AS+PB, ACBS

Samples Delivered to: TAL Time: 15:25 Date: 06/13/18

COMMENTS:

Issue with tubing resulted in sediment in total metals sample.



**FIELD SAMPLING DATA SHEET**

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road  
 CLIENT: Metalico Aluminum Recovery, Inc.  
 Weather Conditions: Overcast

SAMPLE LOCATION: B-291  
 JOB #: 1206.002.007  
 Temperature: 75°F

SAMPLE TYPE: Groundwater  Surface Water  Other (specify): \_\_\_\_\_  
 Sediment  Leachate

**WATER LEVEL DATA**

Static Water Level (feet)*:	<u>7.36</u>
Measured Well Depth (feet)*:	<u>12.54</u>
Well Casing Diameter (inches):	<u>2</u>
Calculated Volume in Well Casing (gallons):	<u>0.73</u>

Measuring Point: Top of Riser  
 Measured by: MPS  
 Date: 06/13/18  
 Time: 14:37

\*depth from measuring point

**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): 2.20  
 Actual Volume of Water Purged (gallons): 1.50

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

**SAMPLING METHOD**

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

Sampled by: MPS Time: 12:45 Date: 06/13/18

**SAMPLING DATA**

Sample Appearance  
 Color: Clear Sediment: None Black fines  
 Odor: None

**Field Measured Parameters**

pH (Standard Units)	<u>6.8</u>	Sp. Conductivity (umhos/cm)	<u>990</u>
Temperature (F)	<u>58.7</u>	En-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: TAL Time: 15:25 Date: 06/13/18

**COMMENTS:**

\_\_\_\_\_  
 \_\_\_\_\_



Engineers • Environmental Scientists • Planners • Landscape Architects

FIELD SAMPLING DATA SHEET

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Rain

SAMPLE LOCATION: B-404
JOB #: 1206.002.007
Temperature: 75°F

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

WATER LEVEL DATA

Table with 2 columns: Parameter and Value. Rows include Static Water Level (57.87), Measured Well Depth (16.14), Well Casing Diameter (2), and Calculated Volume in Well Casing (1.64).

Measuring Point: Top of Riser
Measured by: MMS
Date: 06/12/18
Time: 14:45

PURGING METHOD

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

Calculated Volume Of Water To Be Purged (gallons): 492
Actual Volume of Water Purged (gallons): 5.50

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

SAMPLING METHOD

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

Sampled by: MMS Time: 13:07 Date: 06/12/18

SAMPLING DATA

Sample Appearance: Clear
Color: None
Sediment: Orange fines
Odor: None

Field Measured Parameters

Table with 4 columns: Parameter, Value, Parameter, Value. Rows include pH (6.9), Temperature (61.6), Sp. Conductivity (630), and Dissolved Oxygen.

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: TAL Time: 15:25 Date: 06/12/18

COMMENTS:



# FIELD SAMPLING DATA SHEET

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SITE: Metalico - Thompson Road  
CLIENT: Metalico Aluminum Recovery, Inc.  
Weather Conditions: Overcast

SAMPLE LOCATION: B-402R  
JOB #: 1206.002.007  
Temperature: 75°F

SAMPLE TYPE: Groundwater  Surface Water  Other (specify): \_\_\_\_\_  
Sediment  Leachate

### WATER LEVEL DATA

Static Water Level (feet)*:	<u>3.32</u>
Measured Well Depth (feet)*:	12.24
Well Casing Diameter (inches):	<u>2</u>
Calculated Volume in Well Casing (gallons):	<u>643</u>

\*depth from measuring point

Measuring Point: Top of Riser  
Measured by: MPS  
Date: 06/13/18  
Time: 15:01

### 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): 4.29  
Actual Volume of Water Purged (gallons): 0.0

Did well purge dry? No  Yes   
Did well recover? No  Yes

Recovery Time: Overnight

### SAMPLING METHOD

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

Sampled by: MPS Time: 13:50 Date: 06/13/18

### SAMPLING DATA

Sample Appearance

Color: Clean Sediment: None - few root pieces  
Odor: None

### Field Measured Parameters

pH (Standard Units)	<u>7.7</u>	Sp. Conductivity (umhos/cm)	<u>7.7</u>
Temperature (F)	<u>64.9</u>	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: TAL Time: 15:25 Date: 06/13/18

### COMMENTS:



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FIELD SAMPLING DATA SHEET

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: MW-8R / Dupe-X
JOB #: 1206.002.007
Temperature: 75°F

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

WATER LEVEL DATA

Table with 2 columns: Parameter and Value. Rows include Static Water Level (feet)\*: 3.62, Measured Well Depth (feet)\*: 10.00, Well Casing Diameter (inches): 2, Calculated Volume in Well Casing (gallons): 100.

Measuring Point: Top of Riser
Measured by: MPS
Date: 06/13/18
Time: 15:23

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): 306
Actual Volume of Water Purged (gallons): 325

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 Time: 14:22 Date: 06/13/18

SAMPLING DATA

Sample Appearance
Color: white Sediment: None
Odor: Strong Chemical

Field Measured Parameters

Table with 4 columns: Parameter, Value, Parameter, Value. Rows include pH (Standard Units): 6.6, Sp. Conductivity (umhos/cm): 6700, Temperature (F): 69.3, 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: TAL Time: 15:25 Date: 06/13/18

COMMENTS:



Engineers • Environmental Scientists • Planners • Landscape Architects

## Calibration Record

Project No: 1206.002.007  
 Calibrated By: MPS

Date: 06/13/18  
 Time: 10:15

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	1420	(+/- 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



FIELD SAMPLING DATA SHEET

Engineers • Environmental Scientists • Planners • Landscape Architects

SITE: Metalico - Thompson Road
CLIENT: Metalico Aluminum Recovery, Inc.
Weather Conditions: Overcast

SAMPLE LOCATION: Equipment Blank
JOB #: 1206.002.007
Temperature: 75F

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

WATER LEVEL DATA

Table with 2 columns: Parameter (Static Water Level, Measured Well Depth, Well Casing Diameter, Calculated Volume in Well Casing) and Value.

Measuring Point:
Measured by:
Date:
Time:

PURGING METHOD

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

Sampled by: M.P.S Time: 10:34 Date: 06/13/18

SAMPLING DATA

Sample Appearance

Color: - Sediment: -
Odor: -

Field Measured Parameters

Table with 4 columns: Parameter (pH, Temperature, Turbidity, Sp. Conductivity, Eh-Redox Potential, Dissolved Oxygen) and Value.

Samples Collected (Number/Type):

Four bottles - T-Pb,As; D-Pb,As; PCBs (2)

Samples Delivered to: TAL Time: 15:25 Date: 06/13/18

COMMENTS:

<b>Client Information</b> Client Contact: Matthew Strodel Company: Barton & Loguidice, D.P.C. Address: 443 Electronics Parkway City: Liverpool State: NY, Zip: 13068 Phone: 315-744-3850(Tel) Email: mstrodel@bartonandloguidice.com Project Name: Metallico Wells Analysis Site:		Lab PM: Johnson, Orlette S E-Mail: orlette.johnson@testamericainc.com Phone: 315-457-5200 Due Date Requested: 5/18 TAT Requested (days): 5/18 PO #: 39118 WO #: 1206002007 Project #: 48014531 SSO#:		Camera Tracking No(s): 480-113998-22995 1 Page: Page 1 of 2 Job #: 1206002007	
Analysis Requested:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDA Z - other (specify) Other:		Special Instructions/Note:	
Sample Identification B-281 B-281 (MS) B-281 (MSD) B-290 B-291 B-401 B-402R B-403 B-404 MW-8R Equipment Blank		Sample Date: 05/18 Sample Time: 15:35 Sample Type (G=Comp, G=grab): G Matrix (Hexane, MeOH, O-methanol, O-xylene, acm): Water		Field Filtered Sample (Yes or No): X Perform MS/MSD (Yes or No): X 8082A - TCL PCBs - QLM042 6010C - Total As, Pb 6010C - Dissolved As, Pb	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify) II		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For: _____ Months	
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by:		Date: 5/18/18 15:35 Date: 5/18/18 15:35 Date:		Method of Shipment:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

### Chain of Custody Record

<b>Client Information</b> Client Contact: <u>Matthew Strodel</u> Phone: <u>315-457-5200</u> E-Mail: <u>orlette.johnson@testamericainc.com</u>		Lab P.M.: <u>Johnson, Orlette S</u> Carrier Tracking No(s): _____	
Company: <u>Barton &amp; Loguidice, D.P.C.</u> Address: <u>443 Electronics Parkway</u> City: <u>Liverpool</u> State, Zip: <u>NY, 13088</u> Phone: <u>315-744-3850(Tel)</u> Email: <u>mstrodel@bartonandloguidice.com</u> Project Name: <u>Metallco Wells Analysis</u> Site: _____		COC No: <u>480-113998-22995-2</u> Page: <u>Page 2 of 2</u> Job #: <u>180600207</u>	
Due Date Requested: <u>5/18</u> TAT Requested (days): <u>5/18</u> PO #: <u>39118</u> WO #: <u>180600207</u> Project #: <u>48014531</u> SSO#: _____		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> D 602A - TCL PCBs - QLM0.2 601C - Total As, Pb 601C - Dissolved As, Pb	
<b>Sample Identification</b> Sample Date: <u>5/13/18</u> Sample Time: _____ Sample Type (C=Comp, G=grab): <u>G</u> Matrix (W=Water, B=Soil, O=Other): <u>Water</u> Preservation Code: _____		Total Number of Containers: <u>X</u> Special Instructions/Note: _____	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) <u>II</u>			
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Relinquished by: <u>[Signature]</u> Date/Time: <u>5/13/18 15:25</u> Company: <u>BV</u> Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____			

## **Appendix B**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-137414-1

Client Project/Site: Metalico Wells Analysis

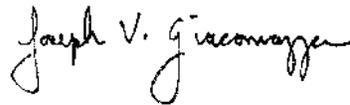
For:

Barton & Loguidice, D.P.C.

443 Electronics Parkway

Liverpool, New York 13088

Attn: Matthew Strodel



Authorized for release by:

6/28/2018 12:13:19 PM

Joe Giacomazza, Project Management Assistant II

[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager

(484)685-0864

[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	6
Surrogate Summary . . . . .	11
QC Sample Results . . . . .	12
QC Association Summary . . . . .	15
Lab Chronicle . . . . .	18
Certification Summary . . . . .	21
Method Summary . . . . .	22
Sample Summary . . . . .	23
Chain of Custody . . . . .	24
Receipt Checklists . . . . .	26

# Definitions/Glossary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

**Job ID: 480-137414-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-137414-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/14/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 1.4° C.

#### GC Semi VOA

Method(s) 8082A: The following samples were diluted due to the nature of the sample matrix: MW-8R (480-137414-8) and DUPE-X (480-137414-10). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Surrogate recovery for the following samples were outside control limits: B-402R (480-137414-5), MW-8R (480-137414-8) and DUPE-X (480-137414-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method(s) 3005A: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: MW-8R (480-137414-8) and DUPE-X (480-137414-10). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 3005A: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: MW-8R (480-137414-8) and DUPE-X (480-137414-10). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 6010C: The following samples were diluted due to the presence of Total Sulfur which interferes with Lead: B-281 (480-137414-1), B-281 (MS) (480-137414-1[MS]), B-281 (MSD) (480-137414-1[MSD]) and B-290 (480-137414-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

Method(s) 3510C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: MW-8R (480-137414-8) and DUPE-X (480-137414-10). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: B-281

Lab Sample ID: 480-137414-1

No Detections.

## Client Sample ID: B-290

Lab Sample ID: 480-137414-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.10		0.015	0.0056	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.014	J	0.015	0.0056	mg/L	1		6010C	Dissolved

## Client Sample ID: B-291

Lab Sample ID: 480-137414-3

No Detections.

## Client Sample ID: B-401

Lab Sample ID: 480-137414-4

No Detections.

## Client Sample ID: B-402R

Lab Sample ID: 480-137414-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0090	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Lead	0.0037	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.0082	J	0.015	0.0056	mg/L	1		6010C	Dissolved

## Client Sample ID: B-403

Lab Sample ID: 480-137414-6

No Detections.

## Client Sample ID: B-404

Lab Sample ID: 480-137414-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0043	J	0.010	0.0030	mg/L	1		6010C	Total/NA

## Client Sample ID: MW-8R

Lab Sample ID: 480-137414-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	35		5.0	2.5	ug/L	10		8082A	Total/NA
Arsenic	0.057		0.030	0.011	mg/L	1		6010C	Total/NA
Lead	0.28		0.020	0.0060	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.059		0.030	0.011	mg/L	1		6010C	Dissolved
Lead, Dissolved	0.19		0.020	0.0060	mg/L	1		6010C	Dissolved

## Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-137414-9

No Detections.

## Client Sample ID: DUPE-X

Lab Sample ID: 480-137414-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	33		5.0	2.5	ug/L	10		8082A	Total/NA
Arsenic	0.056		0.030	0.011	mg/L	1		6010C	Total/NA
Lead	0.28		0.020	0.0060	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.039		0.030	0.011	mg/L	1		6010C	Dissolved
Lead, Dissolved	0.13		0.020	0.0060	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

**Client Sample ID: B-281**  
**Date Collected: 06/13/18 00:00**  
**Date Received: 06/14/18 01:00**

**Lab Sample ID: 480-137414-1**  
**Matrix: Water**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 16:51	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		39 - 121	06/20/18 14:25	06/21/18 16:51	1
DCB Decachlorobiphenyl	47		19 - 120	06/20/18 14:25	06/21/18 16:51	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 17:53	1
Lead	ND		0.10	0.030	mg/L		06/15/18 09:07	06/20/18 13:23	10

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 00:28	1
Lead, Dissolved	ND		0.050	0.015	mg/L		06/15/18 09:08	06/21/18 12:31	5

**Client Sample ID: B-290**

**Date Collected: 06/13/18 00:00**  
**Date Received: 06/14/18 01:00**

**Lab Sample ID: 480-137414-2**  
**Matrix: Water**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 17:07	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		39 - 121	06/20/18 14:25	06/21/18 17:07	1
DCB Decachlorobiphenyl	38		19 - 120	06/20/18 14:25	06/21/18 17:07	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.10		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:16	1
Lead	ND		0.050	0.015	mg/L		06/15/18 09:07	06/20/18 13:34	5

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.014	J	0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 00:58	1
Lead, Dissolved	ND		0.050	0.015	mg/L		06/15/18 09:08	06/21/18 12:49	5

TestAmerica Buffalo

# Client Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: B-291

Lab Sample ID: 480-137414-3

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 17:55	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 17:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	74		39 - 121				06/20/18 14:25	06/21/18 17:55	1
DCB Decachlorobiphenyl	40		19 - 120				06/20/18 14:25	06/21/18 17:55	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:19	1
Lead	ND		0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:19	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:02	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:02	1

## Client Sample ID: B-401

Lab Sample ID: 480-137414-4

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:10	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:10	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	45		39 - 121				06/20/18 14:25	06/21/18 18:10	1
DCB Decachlorobiphenyl	19		19 - 120				06/20/18 14:25	06/21/18 18:10	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:23	1
Lead	ND		0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:23	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:06	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:06	1

TestAmerica Buffalo

# Client Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: B-402R

## Lab Sample ID: 480-137414-5

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:26	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	124	X	39 - 121	06/20/18 14:25	06/21/18 18:26	1
DCB Decachlorobiphenyl	31		19 - 120	06/20/18 14:25	06/21/18 18:26	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0090	J	0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:27	1
Lead	0.0037	J	0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:27	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.0082	J	0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:09	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:09	1

## Client Sample ID: B-403

## Lab Sample ID: 480-137414-6

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:42	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		39 - 121	06/20/18 14:25	06/21/18 18:42	1
DCB Decachlorobiphenyl	32		19 - 120	06/20/18 14:25	06/21/18 18:42	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:31	1
Lead	ND		0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:31	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:13	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:13	1

TestAmerica Buffalo

# Client Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

**Client Sample ID: B-404**

**Lab Sample ID: 480-137414-7**

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:58	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 18:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		39 - 121				06/20/18 14:25	06/21/18 18:58	1
DCB Decachlorobiphenyl	27		19 - 120				06/20/18 14:25	06/21/18 18:58	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:34	1
Lead	0.0043	J	0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:34	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:17	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:17	1

**Client Sample ID: MW-8R**

**Lab Sample ID: 480-137414-8**

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1221	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1232	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1242	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1248	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1254	35		5.0	2.5	ug/L		06/20/18 14:25	06/21/18 19:14	10
PCB-1260	ND		5.0	2.5	ug/L		06/20/18 14:25	06/21/18 19:14	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	9	X	39 - 121				06/20/18 14:25	06/21/18 19:14	10
DCB Decachlorobiphenyl	65		19 - 120				06/20/18 14:25	06/21/18 19:14	10

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.057		0.030	0.011	mg/L		06/15/18 09:07	06/19/18 18:41	1
Lead	0.28		0.020	0.0060	mg/L		06/15/18 09:07	06/19/18 18:41	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.059		0.030	0.011	mg/L		06/15/18 09:08	06/21/18 01:42	1
Lead, Dissolved	0.19		0.020	0.0060	mg/L		06/15/18 09:08	06/21/18 01:42	1

TestAmerica Buffalo

# Client Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-137414-9

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 19:30	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 19:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	72		39 - 121				06/20/18 14:25	06/21/18 19:30	1
DCB Decachlorobiphenyl	31		19 - 120				06/20/18 14:25	06/21/18 19:30	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 18:38	1
Lead	ND		0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 18:38	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 01:20	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 01:20	1

## Client Sample ID: DUPE-X

Lab Sample ID: 480-137414-10

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:46	10
PCB-1221	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:46	10
PCB-1232	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:46	10
PCB-1242	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:46	10
PCB-1248	ND		5.0	1.8	ug/L		06/20/18 14:25	06/21/18 19:46	10
<b>PCB-1254</b>	<b>33</b>		5.0	2.5	ug/L		06/20/18 14:25	06/21/18 19:46	10
PCB-1260	ND		5.0	2.5	ug/L		06/20/18 14:25	06/21/18 19:46	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	9	X	39 - 121				06/20/18 14:25	06/21/18 19:46	10
DCB Decachlorobiphenyl	0	X	19 - 120				06/20/18 14:25	06/21/18 19:46	10

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.056</b>		0.030	0.011	mg/L		06/15/18 09:07	06/19/18 18:56	1
<b>Lead</b>	<b>0.28</b>		0.020	0.0060	mg/L		06/15/18 09:07	06/19/18 18:56	1

### Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic, Dissolved</b>	<b>0.039</b>		0.030	0.011	mg/L		06/15/18 09:08	06/21/18 01:46	1
<b>Lead, Dissolved</b>	<b>0.13</b>		0.020	0.0060	mg/L		06/15/18 09:08	06/21/18 01:46	1

TestAmerica Buffalo

# Surrogate Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (39-121)	DCBP1 (19-120)
480-137414-1	B-281	81	47
480-137414-1 MS	B-281 (MS)	77	45
480-137414-1 MSD	B-281 (MSD)	77	41
480-137414-2	B-290	75	38
480-137414-3	B-291	74	40
480-137414-4	B-401	45	19
480-137414-5	B-402R	124 X	31
480-137414-6	B-403	81	32
480-137414-7	B-404	71	27
480-137414-8	MW-8R	9 X	65
480-137414-9	EQUIPMENT BLANK	72	31
480-137414-10	DUPE-X	9 X	0 X
LCS 480-420660/2-A	Lab Control Sample	81	34
MB 480-420660/1-A	Method Blank	71	37

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

# QC Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 480-420660/1-A**  
**Matrix: Water**  
**Analysis Batch: 420801**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 420660**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1221	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1232	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1242	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1248	ND		0.50	0.18	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1254	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 15:47	1
PCB-1260	ND		0.50	0.25	ug/L		06/20/18 14:25	06/21/18 15:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	71		39 - 121	06/20/18 14:25	06/21/18 15:47	1
DCB Decachlorobiphenyl	37		19 - 120	06/20/18 14:25	06/21/18 15:47	1

**Lab Sample ID: LCS 480-420660/2-A**  
**Matrix: Water**  
**Analysis Batch: 420801**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 420660**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
PCB-1016	4.00	4.21		ug/L		105	62 - 130
PCB-1260	4.00	3.50		ug/L		87	56 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	81		39 - 121
DCB Decachlorobiphenyl	34		19 - 120

**Lab Sample ID: 480-137414-1 MS**  
**Matrix: Water**  
**Analysis Batch: 420801**

**Client Sample ID: B-281 (MS)**  
**Prep Type: Total/NA**  
**Prep Batch: 420660**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
PCB-1016	ND		4.00	4.09		ug/L		102	28 - 150
PCB-1260	ND		4.00	2.97		ug/L		74	25 - 131

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		39 - 121
DCB Decachlorobiphenyl	45		19 - 120

**Lab Sample ID: 480-137414-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 420801**

**Client Sample ID: B-281 (MSD)**  
**Prep Type: Total/NA**  
**Prep Batch: 420660**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
PCB-1016	ND		4.00	4.13		ug/L		103	28 - 150	1	50
PCB-1260	ND		4.00	3.16		ug/L		79	25 - 131	6	50

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		39 - 121
DCB Decachlorobiphenyl	41		19 - 120

TestAmerica Buffalo

# QC Sample Results

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-419752/1-A**  
**Matrix: Water**  
**Analysis Batch: 420566**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		06/15/18 09:07	06/19/18 16:55	1
Lead	ND		0.010	0.0030	mg/L		06/15/18 09:07	06/19/18 16:55	1

**Lab Sample ID: LCS 480-419752/2-A**  
**Matrix: Water**  
**Analysis Batch: 420566**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.195		mg/L		97	80 - 120
Lead	0.200	0.194		mg/L		97	80 - 120

**Lab Sample ID: 480-137414-1 MS**  
**Matrix: Water**  
**Analysis Batch: 420566**

**Client Sample ID: B-281 (MS)**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.200	0.223		mg/L		111	75 - 125

**Lab Sample ID: 480-137414-1 MS**  
**Matrix: Water**  
**Analysis Batch: 420776**

**Client Sample ID: B-281 (MS)**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.200	0.215		mg/L		108	75 - 125

**Lab Sample ID: 480-137414-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 420566**

**Client Sample ID: B-281 (MSD)**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.200	0.234		mg/L		117	75 - 125	5	20

**Lab Sample ID: 480-137414-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 420776**

**Client Sample ID: B-281 (MSD)**  
**Prep Type: Total/NA**  
**Prep Batch: 419752**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		0.200	0.208		mg/L		104	75 - 125	4	20

**Lab Sample ID: MB 480-419748/1-A**  
**Matrix: Water**  
**Analysis Batch: 420784**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 419748**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		06/15/18 09:08	06/21/18 00:21	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		06/15/18 09:08	06/21/18 00:21	1

# QC Sample Results

Client: Barton & Loguidice, D.P.C.  
 Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 480-419748/2-A**

**Matrix: Water**

**Analysis Batch: 420784**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 419748**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.200	0.201		mg/L		101	80 - 120
Lead, Dissolved	0.200	0.196		mg/L		98	80 - 120

**Lab Sample ID: 480-137414-1 MS**

**Matrix: Water**

**Analysis Batch: 420784**

**Client Sample ID: B-281 (MS)**

**Prep Type: Dissolved**

**Prep Batch: 419748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	ND		0.200	0.216		mg/L		108	75 - 125

**Lab Sample ID: 480-137414-1 MS**

**Matrix: Water**

**Analysis Batch: 421063**

**Client Sample ID: B-281 (MS)**

**Prep Type: Dissolved**

**Prep Batch: 419748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead, Dissolved	ND		0.200	0.188		mg/L		94	75 - 125

**Lab Sample ID: 480-137414-1 MSD**

**Matrix: Water**

**Analysis Batch: 420784**

**Client Sample ID: B-281 (MSD)**

**Prep Type: Dissolved**

**Prep Batch: 419748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic, Dissolved	ND		0.200	0.219		mg/L		109	75 - 125	1	20

**Lab Sample ID: 480-137414-1 MSD**

**Matrix: Water**

**Analysis Batch: 421063**

**Client Sample ID: B-281 (MSD)**

**Prep Type: Dissolved**

**Prep Batch: 419748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead, Dissolved	ND		0.200	0.209		mg/L		104	75 - 125	10	20

# QC Association Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## GC Semi VOA

### Prep Batch: 420660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Total/NA	Water	3510C	
480-137414-2	B-290	Total/NA	Water	3510C	
480-137414-3	B-291	Total/NA	Water	3510C	
480-137414-4	B-401	Total/NA	Water	3510C	
480-137414-5	B-402R	Total/NA	Water	3510C	
480-137414-6	B-403	Total/NA	Water	3510C	
480-137414-7	B-404	Total/NA	Water	3510C	
480-137414-8	MW-8R	Total/NA	Water	3510C	
480-137414-9	EQUIPMENT BLANK	Total/NA	Water	3510C	
480-137414-10	DUPE-X	Total/NA	Water	3510C	
MB 480-420660/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-420660/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-137414-1 MS	B-281 (MS)	Total/NA	Water	3510C	
480-137414-1 MSD	B-281 (MSD)	Total/NA	Water	3510C	

### Analysis Batch: 420801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Total/NA	Water	8082A	420660
480-137414-2	B-290	Total/NA	Water	8082A	420660
480-137414-3	B-291	Total/NA	Water	8082A	420660
480-137414-4	B-401	Total/NA	Water	8082A	420660
480-137414-5	B-402R	Total/NA	Water	8082A	420660
480-137414-6	B-403	Total/NA	Water	8082A	420660
480-137414-7	B-404	Total/NA	Water	8082A	420660
480-137414-8	MW-8R	Total/NA	Water	8082A	420660
480-137414-9	EQUIPMENT BLANK	Total/NA	Water	8082A	420660
480-137414-10	DUPE-X	Total/NA	Water	8082A	420660
MB 480-420660/1-A	Method Blank	Total/NA	Water	8082A	420660
LCS 480-420660/2-A	Lab Control Sample	Total/NA	Water	8082A	420660
480-137414-1 MS	B-281 (MS)	Total/NA	Water	8082A	420660
480-137414-1 MSD	B-281 (MSD)	Total/NA	Water	8082A	420660

## Metals

### Prep Batch: 419748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Dissolved	Water	3005A	
480-137414-2	B-290	Dissolved	Water	3005A	
480-137414-3	B-291	Dissolved	Water	3005A	
480-137414-4	B-401	Dissolved	Water	3005A	
480-137414-5	B-402R	Dissolved	Water	3005A	
480-137414-6	B-403	Dissolved	Water	3005A	
480-137414-7	B-404	Dissolved	Water	3005A	
480-137414-8	MW-8R	Dissolved	Water	3005A	
480-137414-9	EQUIPMENT BLANK	Dissolved	Water	3005A	
480-137414-10	DUPE-X	Dissolved	Water	3005A	
MB 480-419748/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-419748/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
480-137414-1 MS	B-281 (MS)	Dissolved	Water	3005A	
480-137414-1 MSD	B-281 (MSD)	Dissolved	Water	3005A	

TestAmerica Buffalo

# QC Association Summary

Client: Barton & Loguidice, D.P.C.  
 Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Metals (Continued)

### Prep Batch: 419752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Total/NA	Water	3005A	
480-137414-2	B-290	Total/NA	Water	3005A	
480-137414-3	B-291	Total/NA	Water	3005A	
480-137414-4	B-401	Total/NA	Water	3005A	
480-137414-5	B-402R	Total/NA	Water	3005A	
480-137414-6	B-403	Total/NA	Water	3005A	
480-137414-7	B-404	Total/NA	Water	3005A	
480-137414-8	MW-8R	Total/NA	Water	3005A	
480-137414-9	EQUIPMENT BLANK	Total/NA	Water	3005A	
480-137414-10	DUPE-X	Total/NA	Water	3005A	
MB 480-419752/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-419752/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-137414-1 MS	B-281 (MS)	Total/NA	Water	3005A	
480-137414-1 MSD	B-281 (MSD)	Total/NA	Water	3005A	

### Analysis Batch: 420566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Total/NA	Water	6010C	419752
480-137414-2	B-290	Total/NA	Water	6010C	419752
480-137414-3	B-291	Total/NA	Water	6010C	419752
480-137414-4	B-401	Total/NA	Water	6010C	419752
480-137414-5	B-402R	Total/NA	Water	6010C	419752
480-137414-6	B-403	Total/NA	Water	6010C	419752
480-137414-7	B-404	Total/NA	Water	6010C	419752
480-137414-8	MW-8R	Total/NA	Water	6010C	419752
480-137414-9	EQUIPMENT BLANK	Total/NA	Water	6010C	419752
480-137414-10	DUPE-X	Total/NA	Water	6010C	419752
MB 480-419752/1-A	Method Blank	Total/NA	Water	6010C	419752
LCS 480-419752/2-A	Lab Control Sample	Total/NA	Water	6010C	419752
480-137414-1 MS	B-281 (MS)	Total/NA	Water	6010C	419752
480-137414-1 MSD	B-281 (MSD)	Total/NA	Water	6010C	419752

### Analysis Batch: 420776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Total/NA	Water	6010C	419752
480-137414-2	B-290	Total/NA	Water	6010C	419752
480-137414-1 MS	B-281 (MS)	Total/NA	Water	6010C	419752
480-137414-1 MSD	B-281 (MSD)	Total/NA	Water	6010C	419752

### Analysis Batch: 420784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Dissolved	Water	6010C	419748
480-137414-2	B-290	Dissolved	Water	6010C	419748
480-137414-3	B-291	Dissolved	Water	6010C	419748
480-137414-4	B-401	Dissolved	Water	6010C	419748
480-137414-5	B-402R	Dissolved	Water	6010C	419748
480-137414-6	B-403	Dissolved	Water	6010C	419748
480-137414-7	B-404	Dissolved	Water	6010C	419748
480-137414-8	MW-8R	Dissolved	Water	6010C	419748
480-137414-9	EQUIPMENT BLANK	Dissolved	Water	6010C	419748
480-137414-10	DUPE-X	Dissolved	Water	6010C	419748

TestAmerica Buffalo

# QC Association Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Metals (Continued)

### Analysis Batch: 420784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-419748/1-A	Method Blank	Total Recoverable	Water	6010C	419748
LCS 480-419748/2-A	Lab Control Sample	Total Recoverable	Water	6010C	419748
480-137414-1 MS	B-281 (MS)	Dissolved	Water	6010C	419748
480-137414-1 MSD	B-281 (MSD)	Dissolved	Water	6010C	419748

### Analysis Batch: 421063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-137414-1	B-281	Dissolved	Water	6010C	419748
480-137414-2	B-290	Dissolved	Water	6010C	419748
480-137414-1 MS	B-281 (MS)	Dissolved	Water	6010C	419748
480-137414-1 MSD	B-281 (MSD)	Dissolved	Water	6010C	419748

# Lab Chronicle

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: B-281

Lab Sample ID: 480-137414-1

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 16:51	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 00:28	S1P	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		5	421063	06/21/18 12:31	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		10	420776	06/20/18 13:23	LMH	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 17:53	LMH	TAL BUF

## Client Sample ID: B-290

Lab Sample ID: 480-137414-2

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 17:07	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 00:58	S1P	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		5	421063	06/21/18 12:49	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		5	420776	06/20/18 13:34	LMH	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:16	LMH	TAL BUF

## Client Sample ID: B-291

Lab Sample ID: 480-137414-3

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 17:55	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:02	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:19	LMH	TAL BUF

# Lab Chronicle

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: B-401

Lab Sample ID: 480-137414-4

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 18:10	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:06	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:23	LMH	TAL BUF

## Client Sample ID: B-402R

Lab Sample ID: 480-137414-5

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 18:26	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:09	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:27	LMH	TAL BUF

## Client Sample ID: B-403

Lab Sample ID: 480-137414-6

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 18:42	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:13	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:31	LMH	TAL BUF

## Client Sample ID: B-404

Lab Sample ID: 480-137414-7

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 18:58	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:17	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:34	LMH	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Client Sample ID: MW-8R

Lab Sample ID: 480-137414-8

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		10	420801	06/21/18 19:14	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:42	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:41	LMH	TAL BUF

## Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-137414-9

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		1	420801	06/21/18 19:30	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:20	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:38	LMH	TAL BUF

## Client Sample ID: DUPE-X

Lab Sample ID: 480-137414-10

Date Collected: 06/13/18 00:00

Matrix: Water

Date Received: 06/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			420660	06/20/18 14:25	ATG	TAL BUF
Total/NA	Analysis	8082A		10	420801	06/21/18 19:46	W1T	TAL BUF
Dissolved	Prep	3005A			419748	06/15/18 09:08	KMP	TAL BUF
Dissolved	Analysis	6010C		1	420784	06/21/18 01:46	S1P	TAL BUF
Total/NA	Prep	3005A			419752	06/15/18 09:07	KMP	TAL BUF
Total/NA	Analysis	6010C		1	420566	06/19/18 18:56	LMH	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Accreditation/Certification Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

## Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18 *

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\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: Barton & Loguidice, D.P.C.  
Project/Site: Metalico Wells Analysis

TestAmerica Job ID: 480-137414-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-137414-1	B-281	Water	06/13/18 00:00	06/14/18 01:00
480-137414-2	B-290	Water	06/13/18 00:00	06/14/18 01:00
480-137414-3	B-291	Water	06/13/18 00:00	06/14/18 01:00
480-137414-4	B-401	Water	06/13/18 00:00	06/14/18 01:00
480-137414-5	B-402R	Water	06/13/18 00:00	06/14/18 01:00
480-137414-6	B-403	Water	06/13/18 00:00	06/14/18 01:00
480-137414-7	B-404	Water	06/13/18 00:00	06/14/18 01:00
480-137414-8	MW-8R	Water	06/13/18 00:00	06/14/18 01:00
480-137414-9	EQUIPMENT BLANK	Water	06/13/18 00:00	06/14/18 01:00
480-137414-10	DUPE-X	Water	06/13/18 00:00	06/14/18 01:00

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**TestAmerica Buffalo**  
 10 Hazelwood Drive  
 Amherst, NY 14228-2298  
 Phone (716) 691-2600 Fax (716) 691-7991

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact: Matthew Strodel  
 Phone: 315-457-5300  
 E-Mail: orielte.johnson@testamericainc.com  
 Company: Barton & Loguidice, D.P.C.  
 Address: 443 Electronics Parkway  
 City: Liverpool  
 State, Zip: NY, 13088  
 Phone: 315-744-3850(Tel)  
 Email: mstrodel@bartonandloguidice.com  
 Project Name: Metalico Wells Analysis  
 Site:

COC No: 480-113998-22995.1  
 Page: Page 1 of 2  
 Job #: 1206002007

Analysis Reque. 480-137414 COC  
 Lab PM: Johnson, Orelte S  
 E-Mail: orielte.johnson@testamericainc.com  
 Due Date Requested: 5/14  
 TAT Requested (days): 5/14  
 PO #: 39118  
 WO #: 1206002007  
 Project #: 48014531  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastell, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	802A - TCL PCBs - OLM042	6010C - Total As, Pb	6010C - Dissolved As, Pb	Total Number of Containers	Special Instructions/Note:
B-281	05/13/18		G	Water	X	X	X	X	X		
B-281 (MS)				Water							
B-281 (MSD)				Water							
B-290				Water							
B-291				Water							
B-401				Water							
B-402R				Water							
B-403				Water							
B-404				Water							
MW-6R				Water							
Equipment Blank				Water							

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological  
 Deliverable Requested: I, II, III, IV, Other (specify) II

Empty Kit Relinquished by: Matthew Strodel Date: 05/13/18 15:25  
 Relinquished by: Matthew Strodel Date: 05/13/18 15:25  
 Relinquished by: RE-19 C14 Date: 05-13-18, 19:00  
 Relinquished by: RE-19 C14 Date: 05-13-18, 15:25  
 Company: Syn  
 Company: Syn  
 Company: Syn  
 Company: Syn

Special Instructions/QC Requirements:  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Cooler Temperature(s) °C and Other Remarks: 10, 14

Chain of Custody Record

<b>Client Information</b> Client Contact: Matthew Strodel Phone: 315-437-5200 E-Mail: orlette.johnson@testamericainc.com Company: Barton & Loguidice, D.P.C. Address: 443 Electronics Parkway City: Liverpool State, Zip: NY, 13088 Phone: 315-744-3850(Tel) Email: mstrodel@bartonandloguidice.com Project Name: Metalco Wells Analysis Site:		Lab PM: Johnson, Orlette S E-Mail: orlette.johnson@testamericainc.com Carrier Tracking No(s): COC No: 480-113998-22995.2 Page: Page 2 of 2 Job #: 180600207	
Due Date Requested: 5/18 TAT Requested (days): 5/18 PO #: 39118 WO #: 180600207 Project #: 48014531 SSOW#:		<b>Analysis Requested</b> Total Number of Containers:	
<b>Sample Identification</b> Dupe-X Sample Date: 06/13/18 Sample Time: 15:25 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=wastefall, BT=tissue, A=air): Water Field Filtered Sample (Yes or No): X Perform MS/MSD (Yes or No): X 8082A - TCL PCBs - OLM04.2 6010C - Total As, Pb 6010C - Dissolved As, Pb		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 L - EDA Other: Special Instructions/Note:	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) <i>II</i>			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			
Relinquished by: <i>Matthew Strodel</i> Relinquished by: <i>R. E. English</i> Relinquished by:		Date: 06/13/18 15:25 Date/Time: 06-13-18, 19:00 Date/Time:	
Empty Kit Relinquished by:		Date:	
Relinquished by: <i>Matthew Strodel</i> Relinquished by: <i>R. E. English</i> Relinquished by:		Date/Time: 06/13/18 15:25 Date/Time: 06-13-18, 19:00 Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks: 10, 11 #1			



## Login Sample Receipt Checklist

Client: Barton & Loguidice, D.P.C.

Job Number: 480-137414-1

**Login Number: 137414**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Williams, Christopher S**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	SAMPLE TIMES NOT LISTED ON COC.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	B AND L
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	