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February 2019  
File No. 129862-005

RACER Trust  
1400 Lowell Ave.  
Elyria, Ohio 44035

Attention: Pamela Barnett

Subject: 2018 Biennial Groundwater Monitoring - Closed RCRA Landfill  
1400 Lowell Ave.  
Elyria, Ohio

Ladies and Gentlemen:

Please find attached the Biennial Groundwater Monitoring Report for 2018 for the Closed Landfill in Elyria, Ohio. We appreciate the opportunity to provide environmental consulting services on this project, and if you have any questions or comments, please do not hesitate to call or email.

Sincerely yours,  
HALEY & ALDRICH, INC.

Ban Aragona  
Project Manager

Enclosures

G:\129862\_Racer Elyria\005\Deliverables\DRAFT\_2018\_1030\_GW Monitoring\_d2\_bna2.docx

**REPORT ON  
2018 BIENNIAL GROUNDWATER MONITORING –  
CLOSED RCRA LANDFILL  
1400 LOWELL AVE.  
ELYRIA, OHIO**

by Haley & Aldrich, Inc.  
Cleveland, Ohio

for RACER Trust  
Elyria, Ohio

File No. 129862-005  
February 2019



## Introduction

This report presents the 2018 Biennial Groundwater Monitoring Event for the Closed Landfill (Site) in Elyria, Ohio as described in the Revised Post-Closure Plan (Revised PCP) (Haley & Aldrich, 2015). The Revised PCP was approved by the Ohio EPA on December 29, 2015. This work is required under the Ohio Environmental Protection Agency's (Ohio EPA) Ohio Administrative Code (OAC) Rule 3745-54-75. This report has been prepared by Haley & Aldrich, Inc. (Haley & Aldrich), on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust. The Site is located in Lorain County, Ohio, at 1400 Lowell Street, in the City of Elyria, as presented on Figure 1.1.

The groundwater monitoring events in 2018 included the following activities:

- Water level measurements were collected from Site monitoring wells, piezometers, and primary sumps (June 2018); and
- Water quality samples were collected from select Site monitoring wells (June 2018)

Haley & Aldrich performed the field activities associated with the sampling events. Samples were submitted to TestAmerica Laboratories, Inc. in North Canton, Ohio for laboratory analysis.

The results of the water level and water quality monitoring are presented in subsequent sections of this report.

The data collected in 2018 are being submitted electronically as Microsoft Excel (MS Excel) files, as per the 2013 generic Form and Instructions from Ohio EPA. The five MS Excel files are labeled as: Facility, Wells, Sampling, Params, GW Data, and are included on the enclosed compact disc (CD) in Appendix A.

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3	Bedrock Groundwater Elevations

## **1. Facility Database**

The 2018 Biennial Report Form for Section 1 has been completed and is included in Appendix A-1.

## **2. Well Database**

The 2018 Biennial Report Form for Section 2 has been completed and is included in Appendix A-2.

## **3. Sampling Database**

The 2018 Biennial Report Form for Section 3 has been completed and is included in Appendix A-3.

## **4. Parameter Database**

The 2018 Biennial Report Form for Section 4 has been completed and is included in Appendix A-4.

## **5. Groundwater Database**

The 2018 Biennial Report Form for Section 5 has been completed and is included in Appendix A-5.

## **6. Other Required Information**

### **6.1 GROUNDWATER CONTOURS**

There are 18 monitoring wells and 8 piezometers that are currently part of the Site's hydraulic monitoring network. These locations are either required according to the Revised PCP.

Groundwater elevations were collected in June 18, 2018. Groundwater elevations were collected from 26 wells and piezometers. The groundwater elevations for 2018 are summarized in Table I.

The groundwater elevations, contours, and generalized flow direction for the till contact, and bedrock aquifers for June 2018 are presented in Figures 2 and 3, respectively. During the June 2018 monitoring event, groundwater flow directions in the till contact and bedrock aquifers beneath the landfill secure cell were from southwest to northeast, which is consistent with previous monitoring events.

### **6.2 GROUNDWATER FLOW**

Groundwater flow velocity was calculated based on the June 2018 water level measurements using an average hydraulic conductivity of  $4.1 \times 10^{-4}$  centimeters per second (cm/sec), and  $1.9 \times 10^{-4}$  cm/sec (Supplemental Annual Report, CRA, 2002)) for till contact and bedrock water-bearing zones, respectively. The groundwater flow velocity beneath the landfill in the till contact zone was calculated at a rate of 28.25 feet per year as detailed in Appendix B-1. The groundwater flow velocity beneath the landfill in the bedrock water-bearing zone was calculated at a rate of 13.14 feet per year as detailed in Appendix B-2.

## 6.3 JUNE 2018 BIENNIAL MONITORING EVENT

Groundwater samples were analyzed for the following site specific parameters:

- Barium (waste indicator parameter);
- Select metals (calcium, chromium, iron, magnesium, manganese, nickel, potassium, and sodium);
- Total cyanide; and
- Chloride and Sulfate.

Total and dissolved metals analyses were requested for all samples collected.. Dissolved metals samples were passed through a 0.45 micron filter in the field. Specific conductance, pH, temperature, turbidity, dissolved oxygen and oxygen reduction potential were measured in the field at monitoring wells prior to sampling.

There were no exceedances of the current Maximum Contaminant Levels (MCLs) as established by US EPA in any of the groundwater samples analyzed for metals or general chemistry that were collected in 2018 (Table 2). MCLs currently exist for barium (2 milligrams per liter [mg/L]), chromium (0.1 mg/L), and total cyanide (0.2 mg/L).

### 6.3.1 Groundwater

Groundwater samples were collected June 20 through June 22, 2018. During the June 2018 biennial monitoring event, groundwater samples were collected from 18 landfill monitoring wells. The groundwater quality samples were collected using a peristaltic pump and both low flow, and purge and sample methods in accordance with the Revised PCP. One field duplicate sample, one matrix spike, and one matrix spike duplicate sample were collected and analyzed for quality control purposes. The well purge field forms for the landfill monitoring wells are presented in Appendix C. The laboratory analytical report and chains-of-custody are presented in Appendix D. The associated data quality assessment and validation memorandum are presented in Appendix E, in accordance with the Revised PCP.

## 7. Statistical Evaluation

The Revised PCP was approved by Ohio EPA on December 29, 2015. The previously approved statistical evaluation has been replaced by comparisons of groundwater results to MCLs for screening purposes under the Revised PCP.

There were no exceedances of the current MCLs (which exist for barium, chromium and total cyanide) in any of the groundwater samples analyzed for metals or general chemistry, collected in 2018.

## 8. Compliance Groundwater Monitoring

Compliance groundwater monitoring is not required because the Site is currently being monitored under a Detection Monitoring Program in accordance with the approved Revised PCP.

## **9. Corrective Action Groundwater Monitoring**

Corrective action groundwater monitoring is not required because there were no groundwater corrective action measures taken at this Site in 2018.

## Declaration

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

Ban N. Aragona

Haley & Aldrich, Inc. (Consultant for Closed Landfill in Elyria, Ohio OHD004201091)

## Tables

**TABLE 1  
GROUNDWATER ELEVATION SUMMARY  
CLOSED RCRA LANDFILL  
ELYRIA, OHIO**

Well ID	TOC Elevation (feet)	6/18/2018			Well Status	Stratigraphic Unit
		Water Depth (feet TOC)	Groundwater Elevation (feet amsl)	Depth to Bottom (feet TOC)		
<b>Monitoring Wells</b>						
P-1T	750.44	10.85	739.59	12.44	Piezometer	Till Contact
P-1	749.57	10.75	738.82	21.10	Piezometer	Bedrock
P-2T	749.80	6.05	743.75	15.16	Monitoring Well	Till Contact
P-2	748.87	5.13	743.74	22.60	Monitoring Well	Bedrock
P-3T	748.77	5.10	743.67	12.77	Monitoring Well	Till Contact
P-3R	748.87	4.90	743.97	21.50	Monitoring Well	Bedrock
P-8T	751.13	6.85	744.28	12.49	Monitoring Well	Till Contact
P-8R	751.09	6.50	744.59	22.53	Monitoring Well	Bedrock
P-11	749.52	7.42	742.10	15.17	Piezometer	Till Contact
P-12TR	752.22	5.16	747.06	14.02	Monitoring Well	Till Contact
P-12	751.83	4.82	747.01	22.52	Monitoring Well	Bedrock
P-13T	750.83	4.75	746.08	10.78	Piezometer	Till Contact
P-13	750.94	4.58	746.36	19.50	Piezometer	Bedrock
P-14T	751.68	5.73	745.95	14.39	Monitoring Well	Till Contact
P-14	751.64	5.70	745.94	22.15	Monitoring Well	Bedrock
P-15T	753.59	6.40	747.19	15.97	Monitoring Well	Till Contact
P-15	753.73	6.70	747.03	24.15	Monitoring Well	Bedrock
P-16T	747.40	7.98	739.42	12.15	Monitoring Well	Till Contact
P-16	747.62	8.45	739.17	20.27	Monitoring Well	Bedrock
P-17	754.96	7.74	747.22	25.30	Piezometer	Bedrock
P-18T	750.25	4.09	746.16	19.92	Monitoring Well	Till Contact
P-18	751.35	5.04	746.31	31.22	Monitoring Well	Bedrock
P-19	750.24	5.66	744.58	21.06	Piezometer	Bedrock
P-20	748.94	8.05	740.89	20.77	Piezometer	Bedrock
P-21T	751.28	8.62	742.66	15.90	Monitoring Well	Till Contact
P-21	751.35	8.96	742.39	24.02	Monitoring Well	Bedrock

**Notes:**

TOC = top of casing

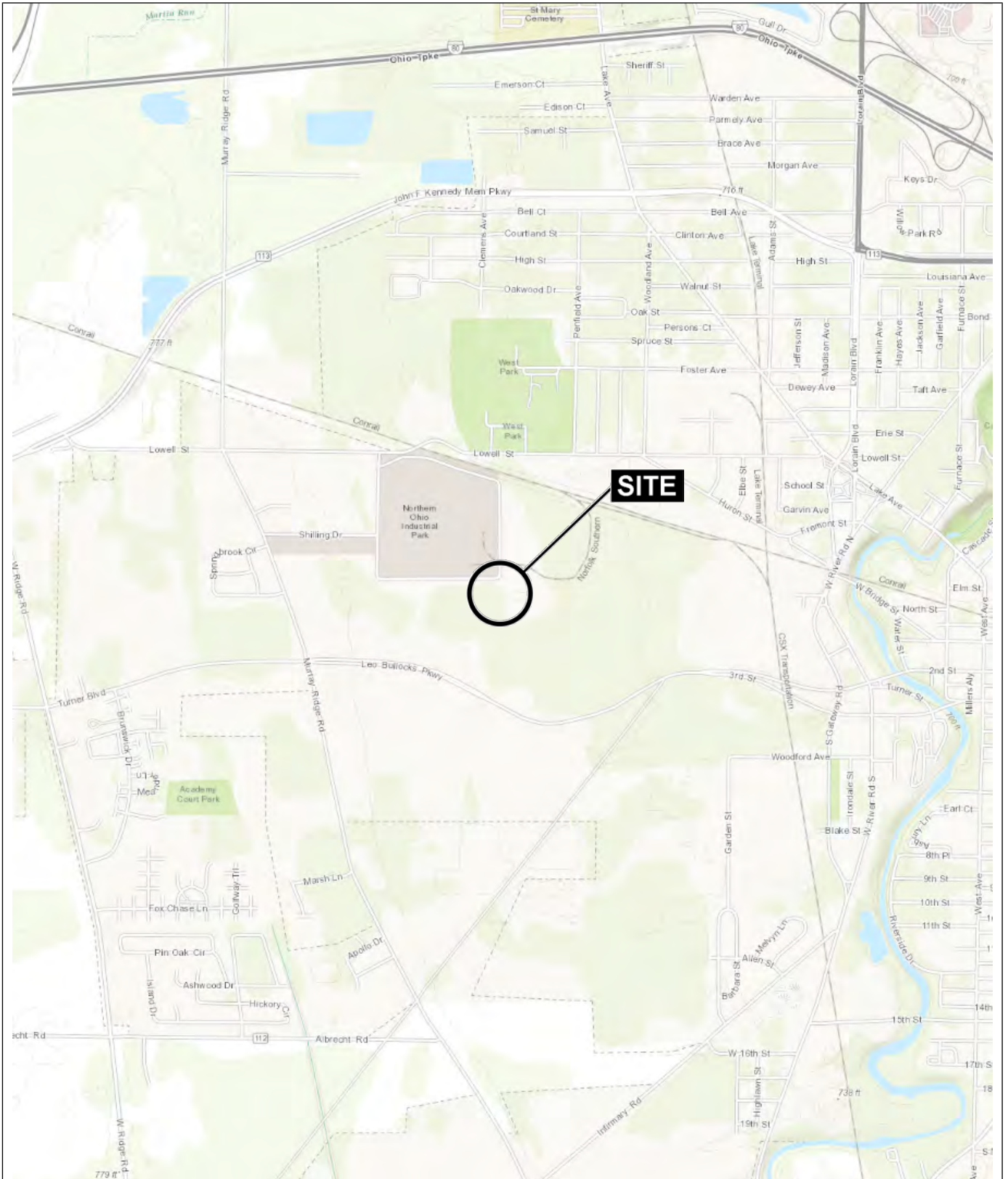
amsl = above mean sea level

**TABLE II**  
**SUMMARY OF ANALYTICAL RESULTS**  
**RACER ELYRIA**  
**ELYRIA, OH**

Location Group	Location	Sample Date	Sample Type	MCL	Down-Gradient							Down/Side-Gradient						Up-Gradient						
					P-08R	P-08T	P-16	P-16T	P-21	P-21T	P-21T	P-02	P-02	P-02T	P-03R	P-03T	P-18	P-18T	P-12	P-12TR	P-14	P-14T	P-15	P-15T
					06/22/2018	06/22/2018	06/21/2018	06/22/2018	06/22/2018	06/22/2018	06/22/2018	06/21/2018	06/21/2018	06/21/2018	06/21/2018	06/21/2018	06/22/2018	06/20/2018	06/21/2018	06/20/2018	06/20/2018	06/20/2018	06/20/2018	06/20/2018
<b>Field Parameters</b>																								
Temperature (Deg C)	-	11.9	14.7	13	13.15	11.83	13.57	-	12	-	12.9	11.27	12.5	13.9	11.52	11.8	12	11.4	13	11.4	11.6			
Conductivity, Field (mS/cm)	-	0.765	0.602	1.201	1.174	1.14	1.411	-	1.034	-	1.669	1.091	1.635	1.273	0.748	0.704	0.668	0.506	0.371	0.62	0.703			
Dissolved Oxygen, Field (mg/L)	-	0.56	1.92	0.85	1.26	0.3	1.81	-	1.15	-	1.17	0.62	0.92	0.8	1.01	1.45	0.48	0.06	0.22	0.43	0.67			
pH, Field (s.u.)	-	6.82	6.6	6.68	7.07	6.91	6.64	-	6.83	-	6.51	7.26	6.82	8.04	7.02	6.94	6.67	6.53	6.02	6.39	6.44			
ORP, Field (mV)	-	63.7	107.6	59.8	126.8	-60.1	-3.7	-	38.9	-	146.1	145.9	191.8	106.8	-45.7	123.6	44.9	-31.7	-36.1	2	40.6			
Turbidity, Field (NTU)	-	0	0	41.7	0	73.9	0	-	0	-	37.2	6.4	2.1	16.1	20.2	126.2	2.3	2.2	0	1.7	10.5			
<b>Inorganic Compounds, Total (mg/L)</b>																								
Barium, Total	2	0.071 J	0.064 J	0.032 J	0.019 J	0.055 J	0.035 J	0.035 J	0.064 J	0.064 J	0.021 J	0.038 J	0.024 J	0.0064 J	0.06 J	0.039 J	0.082 J	0.057 J	0.073 J	0.085 J	0.073 J			
Calcium, Total	-	89	78	240	180	140	210	210	140	130	310	28	190	7.3	77	88	130	110	71	160	200			
Chromium, Total	0.1	0.0013 J	0.00076 J	ND (0.005)	0.00064 J	0.00089 J	0.001 J	0.0015 J	ND (0.005)	0.0013 J	0.0016 J	ND (0.005)	0.0014 J	0.0011 J	0.0028 J	0.0015 J	0.00078 J	ND (0.005)	0.0022 J	ND (0.005)	ND (0.005)			
Iron, Total	-	0.18	0.042 J	3	0.084 J	0.98	0.75	0.82	0.72	0.69	1.4	0.13	0.67	0.48	2.2	0.84	0.45	2.7	9.1	2.7	1.6			
Magnesium, Total	-	26	29	69	49	35	52	52	46	45	120	20	100	2.2 J	23	22	30	24	8.5	31	44			
Manganese, Total	-	0.12	0.12	0.19	0.0052 J	0.11	0.56	0.57	0.45	0.44	0.69	0.011 J	0.037	0.036	0.09	0.095	0.084	0.16	3.1	1.8	1			
Nickel, Total	-	0.0066 J	0.0031 J	0.18	0.017 J	0.15	0.26	0.27	0.0057 J	0.007 J	0.016 J	ND (0.04)	0.0037 J	0.21	0.11	0.0033 J	ND (0.04)	ND (0.04)	0.0054 J	0.0023 J	0.0072 J			
Potassium, Total	-	3.9 J	6.7	2.6 J	1.2 J	3.9 J	2.2 J	2.3 J	4 J	4 J	1.8 J	4.1 J	1.9 J	3.6 J	5.4	4.2 J	2.6 J	1.3 J	2 J	3.8 J	2.4 J			
Sodium, Total	-	88	17	74	67	160	160	150	110	110	44	300	180	320	130	86	55	8.7	5.6 J+	18	18			
<b>Inorganic Compounds, Dissolved (mg/L)</b>																								
Barium, Dissolved	2	0.076 J	0.063 J	0.03 J	0.019 J	0.053 J	0.031 J	0.03 J	0.061 J	0.063 J	0.017 J	0.037 J	0.019 J	0.0043 J	0.059 J	0.036 J	0.076 J	0.055 J	0.094 J	0.072 J	0.069 J			
Calcium, Dissolved	-	88	77	230	180	130	210	200	130	130	310	27	180	7	77	91	120	110	68	170	190			
Chromium, Dissolved	0.1	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0012 J	0.00094 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0015 J	ND (0.005)	ND (0.005)			
Iron, Dissolved	-	0.15	ND (0.1)	2.3	ND (0.1)	0.94	0.6	0.57	0.68	0.69	0.61	ND (0.1)	ND (0.1)	ND (0.1)	0.92	0.028 J	0.1	1.7	7	2.3	1.4			
Magnesium, Dissolved	-	25	29	67	50	33	52	50	45	45	120	19	94	2 J	23	22	29	24	8.1	36	41			
Manganese, Dissolved	-	0.12	0.091	0.17	ND (0.015)	0.11	0.6	0.54	0.4	0.41	0.75	0.012 J	ND (0.015)	0.034	0.087	0.089	0.07	0.16	4.7	3	0.98			
Nickel, Dissolved	-	0.0071 J	0.0036 J	0.15	0.017 J	0.14	0.28	0.26	0.0059 J	0.006 J	0.014 J	ND (0.04)	0.0034 J	0.21	0.11	ND (0.04)	ND (0.04)	ND (0.04)	0.0069 J	0.0034 J	0.0074 J			
Potassium, Dissolved	-	3.9 J	6.6	2.4 J	1.2 J	3.6 J	2 J	2 J	3.9 J	4 J	1.4 J	3.9 J	1.7 J	3.4 J	5	3.8 J	2.4 J	1.3 J	1.9 J	4.9 J	2.3 J			
Sodium, Dissolved	-	93	16	70	69	150	150	140	110	120	44	290	180	340	130	83	52	8.6	5.5 J+	16	18			
<b>Other (mg/L)</b>																								
Chloride	-	68	26	45	5.4	81	70	69	43	44	86	35	7.4 J	35	41	21	14	6.1	3.2	7.4	8.5			
Cyanide	0.2	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)			
Sulfate	-	69	65	510	410	200	460	460	310	310	960	140	850	170	150	82	98	52	24	180	260			

- Notes:**
- Results in **bold** were detected.
  - Results in **red** exceed the MCL.
  - ND - Not detected above the reporting limit.  
 J - Estimated result  
 J+ - Estimated result that may be biased high.
  - Sample Type codes:  
 N - Normal Sample  
 FD - Field Duplicate Sample
  - Data validated by Haley & Aldrich, Inc.

## Figures



MAP SOURCE: ESRI

SITE COORDINATES: 41°22'11"N, 82°8'8"W



**HALEY  
ALDRICH**

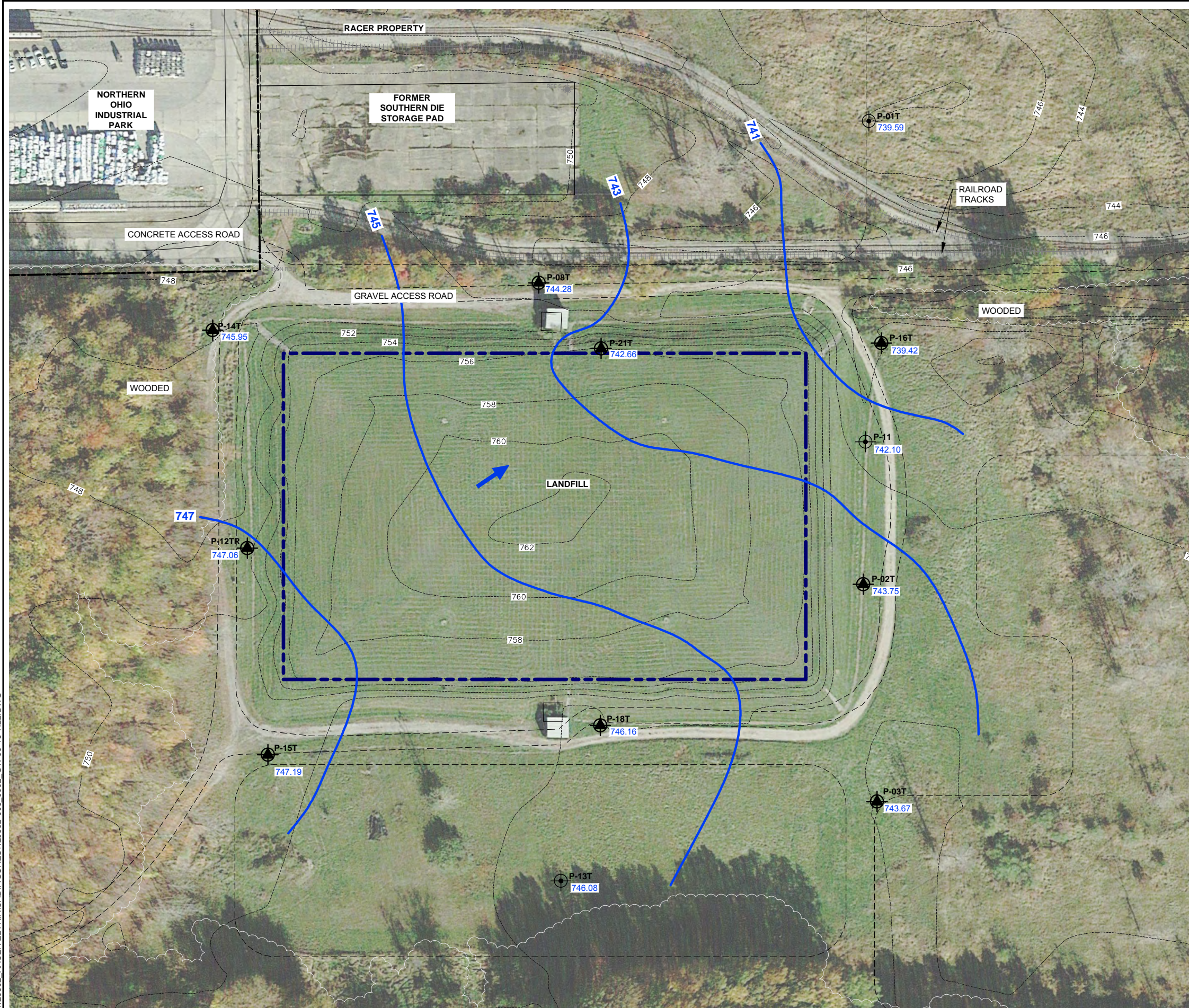
RACER TRUST LANDFILL  
1400 LOWELL STREET  
ELROY, OHIO

**PROJECT LOCUS**

APPROXIMATE SCALE: 1 IN = 2000 FT  
SEPTEMBER 2018

**FIGURE 1**

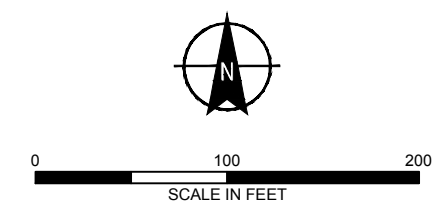
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 Printed: 7/3/2018 11:28 AM  
 Layout: JUNE 2018



**LEGEND**

- SURFACE CONTOUR/ELEVATION
- SITE BOUNDARY
- FENCE
- BIENNIAL MONITORING WELLS
- PIEZOMETER FOR POST CLOSURE CARE WATER ELEVATION MONITORING
- 739.59 GROUNDWATER ELEVATION IN FEET
- 741 INTERPRETED GROUNDWATER ELEVATION CONTOUR IN FEET, DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

- NOTES**
1. SURVEY PROVIDED BY CRA, DRAWING 12616-TO1 (PRES040GN-WA001), DATED FEBRUARY 26, 2015.
  2. IMAGE FROM GOOGL EARTH PRO, DATED OCTOBER 25, 2015.

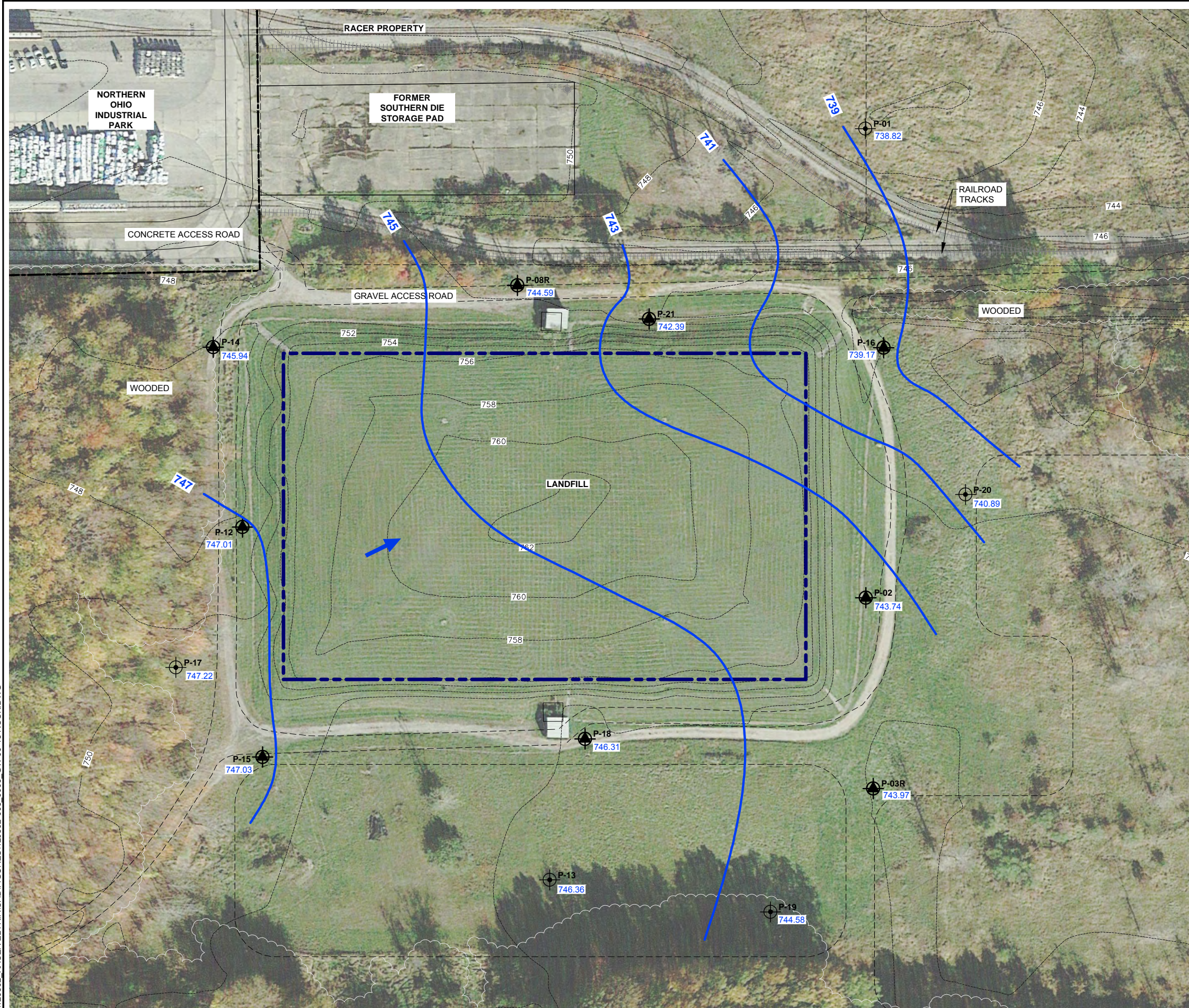


**HALEY ALDRICH** RACER TRUST ELYRIA  
 1400 LOWELL STREET  
 ELYRIA, OHIO

**TILL CONTACT GROUNDWATER ELEVATIONS  
 JUNE 2018**

SCALE: AS SHOWN  
 JULY 2018

**FIGURE 2**

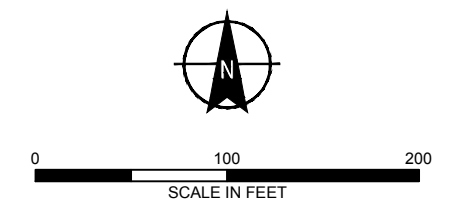


**LEGEND**

- 750 — SURFACE CONTOUR/ELEVATION
- — — — — SITE BOUNDARY
- x — FENCE
- ⊕ BIENNIAL MONITORING WELLS
- ⊕ PIEZOMETER FOR POST CLOSURE CARE WATER ELEVATION MONITORING
- 738.82 GROUNDWATER ELEVATION IN FEET
- 739 — INTERPRETED GROUNDWATER ELEVATION CONTOUR IN FEET, DASHED WHERE INFERRED
- ← GROUNDWATER FLOW DIRECTION

**NOTES**

1. SURVEY PROVIDED BY CRA, DRAWING 12616-TO1 (PRES040GN-WA001), DATED FEBRUARY 26, 2015.
2. IMAGE FROM GOOGL EARTH PRO, DATED OCTOBER 25, 2015.



RACER TRUST ELYRIA  
 1400 LOWELL STREET  
 ELYRIA, OHIO

**BEDROCK GROUNDWATER ELEVATIONS  
 JUNE 2018**

SCALE: AS SHOWN  
 JULY 2018

**APPENDIX A**

**2018 Biennial Groundwater Monitoring Report Forms**

**Params.xls**  
**Closed Landfill**  
**Elyria, OH**

<b>FCID</b>	<b>NAME</b>	<b>UNITS</b>	<b>DET_LMT</b>	<b>ACL</b>	<b>MCL</b>	<b>METH_CODE</b>
OHD004201091	Ba dis	ug/l	200		1.3	SW6010B
OHD004201091	Ba	ug/l	200		1.3	SW6010B
OHD004201091	Ca dis	ug/l	5000		310	SW6010B
OHD004201091	Ca	ug/l	5000		310	SW6010B
OHD004201091	Chloride	mg/l	1		0.28	E300
OHD004201091	Cond F	mS/cm	0.001			Field
OHD004201091	Cyanide	mg/l	0.01		0.006	SM4500
OHD004201091	Cr dis	ug/l	5		0.63	SW6010B
OHD004201091	Cr	ug/l	5		0.63	SW6010B
OHD004201091	DO	mg/l	0.01			Field
OHD004201091	Fe dis	ug/l	100		26	SW6010B
OHD004201091	Fe	ug/l	100		26	SW6010B
OHD004201091	K dis	ug/l	5000		560	SW6010B
OHD004201091	K	ug/l	5000		560	SW6010B
OHD004201091	Mg dis	ug/l	5000		780	SW6010B
OHD004201091	Mg	ug/l	5000		780	SW6010B
OHD004201091	Mn dis	ug/l	15		2.1	SW6010B
OHD004201091	Mn	ug/l	15		2.1	SW6010B
OHD004201091	Na dis	ug/l	5000		560	SW6010B
OHD004201091	Na	ug/l	5000		560	SW6010B
OHD004201091	Ni dis	ug/l	40		2.2	SW6010B
OHD004201091	Ni	ug/l	40		2.2	SW6010B
OHD004201091	ORP F	mv	1			Field
OHD004201091	pH F	SU	0.1			Field
OHD004201091	Sulfate	mg/L	1		0.35	E300
OHD004201091	Temp F	deg C	0.01			Field
OHD004201091	Turb F	NTU	0.1			Field
OHD004201091	GWL	feet	0.01			Field

## **APPENDIX B**

### **Groundwater Flow Velocity Calculations**

**APPENDIX B-1**  
**GROUNDWATER FLOW RATE IN TILL CONTACT WATER-BEARING ZONE**  
**CLOSED RCRA LANDFILL**  
**ELYRIA, OHIO**

Gradient  $I = \frac{(747.19 - 739.59)}{860.00} = 0.009 \text{ ft/ft}$

18 June 2018

Hydraulic Conductivity  $K = 4.1 \times 10^{-4} \text{ cm/sec} = 1.16 \text{ ft/day}^*$

Porosity  $n = 0.15^{**}$

Flow Rate  $v = \frac{(1.16 \text{ ft/day}) \times (0.009 \text{ ft/ft})}{0.15}$

**$v = 25.40 \text{ ft/yr}$**

**Notes:**

- \* - K-value of 1.16 ft/day was taken from the 2002, CRA Supplemental Annual Report for the RACER Elyria site.
- \*\* -Porosity - n-value used is the value for sandstone. Till contact wells are screened partially in clay till and partially in sandstone. The porosity for sandstone will provide a more conservative value for velocity.
- Wells P-15T and P-01T used for gradient calculations.

**APPENDIX B-2  
GROUNDWATER FLOW RATE IN BEDROCK WATER-BEARING ZONE  
CLOSED RCRA LANDFILL  
ELYRIA, OHIO**

Gradient  $I = \frac{(747.22 - 738.82)}{860.00} = 0.010 \text{ ft/ft}$

18 July 2018

Hydraulic Conductivity  $K = 1.9 \times 10^{-4} \text{ cm/sec} = 5.4 \times 10^{-1} \text{ ft/day}^*$

Porosity  $n = 0.15^{**}$

Flow Rate  $v = \frac{(0.54 \text{ ft/day}) \times (0.010 \text{ ft/ft})}{0.15}$

**$v = 13.14 \text{ ft/yr}$**

**Notes:**

- \* - K-value of 0.54 ft/day was taken from the 2002, CRA, Supplemental Annual Report for the RACER Elyria site.
- \*\* -Porosity - n-value used is the value for sandstone.
- Wells P-17 and P-01 used for gradient calculations.

## **APPENDIX C**

### **Field Forms**

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: P-14T Date: 6-20-18 Time Started: 0915 File Number: 129862-005  
 Weather Conditions: 70° Rain Time Ended: \_\_\_\_\_ Field Personnel: S. Partyka

### Initial Readings

Measured Well Bottom (TOR-ft) 14.40 Riser Pipe Diameter (in.) 2  
 Measured Water Level (TOR-ft) 4.62  
 Notes: \_\_\_\_\_

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK	<input type="checkbox"/>	Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other: \_\_\_\_\_  
 Purge Start Time: 0925  
 Water Level Prior to Purging (TOR ft.) 4.62 Water Level After Purging (TOR ft.) \_\_\_\_\_  
 Amount Purged: 5 gal Flow Rate (mL per minute): 250  
 Comments: 5PU = 7.8 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
5	12.78	6.90	0.425	171.6	1.62	-2.9	6.13	
10	12.73	6.40	0.399	29.1	0.68	-16.5	6.18	
15	12.96	6.08	0.373	4.4	0.34	-29.6	6.05	
20	13.00	6.02	0.371	0.0	0.22	-36.1	6.02	
25								

### Sampling Information

Date: 6-20-18 Time Sampled: 0945 Field Personnel: SVP  
 Measured Water Level (TOR ft.): \_\_\_\_\_  
 Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer  
 Polyethylene Bailer  Bladder Pump  Other: \_\_\_\_\_  
 Analysis: Metals, Total Cyanide, Chloride and Sulfate  
 Sample ID: P14T-062018-0945  
 Odor: None Appearance: Clear  
 QA/QC Samples Taken: No  
 Comments: \_\_\_\_\_

Sampler (Print) Sam Partyka Sampler (signature):  Date: 6/20/18

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: P-14 Date: 6-20-18 Time Started: 0955 File Number: 129862-005  
 Weather Conditions: 70° overcast Time Ended: 1100 Field Personnel: S. Partyka

### Initial Readings

Measured Well Bottom (TOR-ft) 22.18 Riser Pipe Diameter (in.) 2  
 Measured Water Level (TOR-ft) 4.82

Notes:

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK	<input type="checkbox"/>	Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other:  
 Purge Start Time: 1000  
 Water Level Prior to Purging (TOR ft.) 4.82 Water Level After Purging (TOR ft.)  
 Amount Purged: 8.5 gal Flow Rate (mL per minute): 250 ~ 500

Comments:

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	11.53	6.45	0.516	21.6	0.09	-29.2	5.00	
2	11.45	6.50	0.512	5.6	0.07	-31.7	5.06	
3	11.37	6.53	0.506	2.2	0.06	-31.7	5.12	

### Sampling Information

Date: 6-20-18 Time Sampled: 1050 Field Personnel: SVP  
 Measured Water Level (TOR ft):  
 Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer  
 Polyethylene Bailer  Bladder Pump  Other:  
 Analysis: Metals, Total Cyanide, Chloride and Sulfate  
 Sample ID: P14-062018-1050  
 Odor: None Appearance: Clear / Rust  
 QA/QC Samples Taken: No  
 Comments:

Sampler (Print) Sam Partyka Sampler (signature):  Date: 6-20-18

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: *P-12TR* Date: *6-20-18* Time Started: *1100* File Number: **129862-005**  
 Weather Conditions: *70°F Overcast/Rain* Time Ended: *1135* Field Personnel: *S. Partyka*

### Initial Readings

Measured Well Bottom (TOR-ft) *14.04* Riser Pipe Diameter (in.) *2*  
 Measured Water Level (TOR-ft) *4.80*

Notes:

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition: OK  Repair Required:  
 Cap Condition: OK  Repair Required:  
 Paint Condition: OK  Repair Required:  
 Lock Condition: OK  Repair Required:  
 Inner Casing Condition: OK  Repair Required:  
 Surface Seal Condition: OK  Repair Required:  
 Other: OK Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other:  
 Purge Start Time: *1105*  
 Water Level Prior to Purging (TOR ft.) *4.80* Water Level After Purging (TOR ft.)  
 Amount Purged: Flow Rate (mL per minute): *~500*

Comments: *3PV = 4.5 gal*

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	12.52	6.62	0.691	6.8	0.63	72.2	7.45	
2	12.14	6.64	0.674	3.4	0.50	68.3	8.25	
3	12.01	6.67	0.668	2.3	0.48	44.9	9.22	

### Sampling Information

Date: *6-20-18* Time Sampled: *1135* Field Personnel: *SUP*  
 Measured Water Level (TOR ft): *9.22*

Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer  
 Polyethylene Bailer  Bladder Pump  Other:

Analysis: Metals, Total Cyanide, Chloride and Sulfate  
 Sample ID: *P12TR-062018-1135*  
 Odor: *None* Appearance: *Clear*  
 QA/QC Samples Taken: *None*

Comments:  
 Sampler (Print) Sam Partyka Sampler (signature): *[Signature]* Date: *6-20-18*

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: *P-15* Date: *6-20-18* Time Started: *1140* File Number: **129862-005**

Weather Conditions: *70°F overcast* Time Ended: *1250* Field Personnel: *S. Partyka*

### Initial Readings

Measured Well Bottom (TOR-ft) *24.20* Riser Pipe Diameter (in.) *2*

Measured Water Level (TOR-ft) *6.20*

Notes:

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition:  OK  Repair Required:

Cap Condition:  OK  Repair Required:

Paint Condition:  OK  Repair Required:

Lock Condition:  OK  Repair Required:

Inner Casing Condition:  OK  Repair Required:

Surface Seal Condition:  OK  Repair Required:

Other:  OK  Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other:

Purge Start Time: *1145*

Water Level Prior to Purging (TOR ft.) *6.20* Water Level After Purging (TOR ft.):

Amount Purged: Flow Rate (mL per minute): *~500*

Comments: *SPV = 8.8 gal*

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<i>1</i>	<i>11.59</i>	<i>6.37</i>	<i>0.642</i>	<i>5.9</i>	<i>0.49</i>	<i>11.7</i>	<i>6.52</i>	
<i>2</i>	<i>11.47</i>	<i>6.37</i>	<i>0.629</i>	<i>3.9</i>	<i>0.47</i>	<i>6.8</i>	<i>6.54</i>	
<i>3</i>	<i>11.39</i>	<i>6.39</i>	<i>0.620</i>	<i>1.7</i>	<i>0.43</i>	<i>2.0</i>	<i>6.57</i>	

### Sampling Information

Date: *6-20-18* Time Sampled: Field Personnel: *SPV*

Measured Water Level (TOR ft):

Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer

Polyethylene Bailer  Bladder Pump  Other:


Analysis: *Metals, Total Cyanide, Chloride and Sulfate*

Sample ID: *P15-062018-1245*

Odor: Appearance:

QA/QC Samples Taken: ~~*7082-062018-0001*~~ / ~~*7082-062018-0002*~~ *P15-062018-1245 ms/msd*

Comments: *Tubing Replaced / Filtered all dissolved metals*

Sampler (Print) *Sam Partyka* Sampler (signature):  Date: *6-20-18*

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: P-15T      Date: 6-20-18      Time Started: 1300      File Number: 129862-005  
 Weather Conditions: 70°F Overcast      Time Ended: 1355      Field Personnel: S. Partyka

### Initial Readings

Measured Well Bottom (TOR-ft) 16.00      Riser Pipe Diameter (in.) 2  
 Measured Water Level (TOR-ft) 5.98  
 Notes:

### Well Condition

Well Riser Type (place an X in one box)       Stainless Steel       Carbon Steel       PVC

Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK	<input type="checkbox"/>	Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump       Bladder Pump       Grundfos Pump      Other:  
 Purge Start Time: 1310  
 Water Level Prior to Purging (TOR ft.) 5.98      Water Level After Purging (TOR ft.)  
 Amount Purged: 5      Flow Rate (mL per minute): ~300 ~400  
 Comments: 3PV = 5 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	11.56	6.45	0.731	30.0	0.33	59.3	7.40	
2	11.57	6.45	0.719	23.9	0.50	50.4	7.40	
3	11.60	6.44	0.703	10.5	0.67	40.6	7.40	

### Sampling Information

Date: 6-20-18      Time Sampled:      Field Personnel: SP

Measured Water Level (TOR ft):

Sampling Method: (place X in box)       Stainless Steel Bailer       Peristaltic Pump       Grundfos Pump       Teflon Bailer  
     Polyethylene Bailer       Bladder Pump      Other:

Analysis: Metals, Total Cyanide, Chloride and Sulfate  
 Sample ID: P15T-062018-1355  
 Odor: None      Appearance: clear  
 QA/QC Samples Taken: None  
 Comments: Collect Field Filtered Metals Sample + unfiltered

Sampler (Print) Sam Partyka      Sampler (signature):       Date: 6-20-18

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <i>P-18T</i>	Date: <i>6-20-18</i>	Time Started: <i>1405</i>	File Number: <b>129862-005</b>
Weather Conditions: <i>70°F Overcast</i>		Time Ended: <i>1510</i>	Field Personnel: <i>S. Partyka</i>

### Initial Readings

Measured Well Bottom (TOR-ft) <i>19.94</i>	Riser Pipe Diameter (in.) <i>2</i>
Measured Water Level (TOR-ft) <i>3.92</i>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK <input type="checkbox"/>	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<i>1410</i>			
Water Level Prior to Purging (TOR ft.)	Water Level After Purging (TOR ft.)			
Amount Purged:	<i>8</i>	Flow Rate (mL per minute): <i>~500</i>		
Comments: <i>3PV = 7.85 Gal</i>				

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<i>1</i>	<i>12.50</i>	<i>7.16</i>	<i>0.738</i>	<i>65.7</i>	<i>1.24</i>	<i>-32.2</i>	<i>15.20</i>	
<i>2</i>	<i>11.67</i>	<i>6.98</i>	<i>0.738</i>	<i>28.4</i>	<i>0.60</i>	<i>-44.8</i>	<i>15.21</i>	
<i>3</i>	<i>11.52</i>	<i>7.02</i>	<i>0.748</i>	<i>20.2</i>	<i>1.01</i>	<i>-45.7</i>	<i>15.26</i>	

### Sampling Information

Date: <i>6-20-18</i>	Time Sampled: <i>1505</i>	Field Personnel: <i>SUP</i>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input checked="" type="checkbox"/> Stainless Steel Bailer	<input checked="" type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailer
Analysis: <b>Metals, Total Cyanide, Chloride and Sulfate</b>		
Sample ID: <i>P18T-062018-1505</i>		
Odor: <i>None</i>	Appearance: <i>Clear</i>	
QA/QC Samples Taken: <i>None</i>		
Comments: <i>Field Filtered Dissolved Metals sample</i>		

Sampler (Print) <i>Sam Partyka</i>	Sampler (signature):	Date: <i>6-20-18</i>
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <u>P-3R</u>	Date: <u>6-21-18</u>	Time Started: <u>0840</u>	File Number: <u>129862-005</u>
Weather Conditions: <u>70°F / Sunny</u>		Time Ended:	Field Personnel: <u>S. Partyka</u>

### Initial Readings

Measured Well Bottom (TOR-ft) <u>21.55</u>	Riser Pipe Diameter (in.) <u>2</u>
Measured Water Level (TOR-ft) <u>4.65</u>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK <input type="checkbox"/>	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	Other:
Purge Start Time:	<u>0850</u>			
Water Level Prior to Purging (TOR ft.)	Water Level After Purging (TOR ft.)			
Amount Purged:	Flow Rate (mL per minute): <u>~500 Reduced to 300 @ 0930</u>			
Comments:	<u>3PV = 8.25 gal</u>			

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	11.47	7.45	1.037	0.0	1.06	93.7	11.87	
2	11.58	7.33	1.096	4.8	0.84	139.3	15.55	
3	11.27	7.26	1.091	6.4	0.62	145.9	16.12	

### Sampling Information

Date: <u>6-21-18</u>	Time Sampled: <u>0945</u>	Field Personnel: <u>SUP</u>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input type="checkbox"/> Stainless Steel Bailer	<input checked="" type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailer
Analysis: <u>Metals, Total Cyanide, Chloride and Sulfate</u>		
Sample ID: <u>P3R-062118-0945</u>		
Odor: <u>None</u>	Appearance: <u>Clear</u>	
QA/QC Samples Taken: <u>None</u>		
Comments:		

Sampler (Print) <u>Sam Partyka</u>	Sampler (signature): 	Date: <u>6-21-18</u>
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <u>P-3T</u>	Date: <u>6-21-18</u>	Time Started: <u>0955</u>	File Number: <u>129862-005</u>
Weather Conditions:		Time Ended:	Field Personnel: <u>S. Partyka</u>

### Initial Readings

Measured Well Bottom (TOR-ft) <u>12.80</u>	Riser Pipe Diameter (in.) <u>8</u>
Measured Water Level (TOR-ft) <u>4.76</u>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)	<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Other:	OK <input type="checkbox"/>	Repair Required:	

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<u>1000</u>			
Water Level Prior to Purging (TOR ft.) <u>4.76</u>	Water Level After Purging (TOR ft.)			
Amount Purged:	Flow Rate (mL per minute): <u>2500</u>			

Comments: 3PV = 4 @ 1

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<u>1</u>	<u>12.69</u>	<u>6.82</u>	<u>1.635</u>	<u>6.3</u>	<u>1.65</u>	<u>186.4</u>	<u>7.15</u>	
<u>2</u>	<u>12.54</u>	<u>6.82</u>	<u>1.635</u>	<u>4.6</u>	<u>1.21</u>	<u>190.6</u>	<u>8.36</u>	
<u>3</u>	<u>12.50</u>	<u>6.82</u>	<u>1.635</u>	<u>2.1</u>	<u>0.92</u>	<u>191.8</u>	<u>9.21</u>	

### Sampling Information

Date: <u>6-21-18</u>	Time Sampled: <u>1035</u>	Field Personnel: <u>JNP</u>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input checked="" type="checkbox"/> Stainless Steel Bailer	<input type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailer
Analysis: <u>Metals, Total Cyanide, Chloride and Sulfate</u>		
Sample ID: <u>P3T-062118-1035</u>		
Odor: <u>None</u>	Appearance: <u>Clear</u>	
QA/QC Samples Taken: <u>None</u>		
Comments:		

Sampler (Print) <u>Sam Partyka</u>	Sampler (signature): 	Date: <u>6-21-18</u>
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <i>P-02</i>	Date: <i>6-21-18</i>	Time Started: <i>1045</i>	File Number: <b>129862-005</b>
Weather Conditions: <i>74°F Sunny</i>	Time Ended: <i>1155</i>	Field Personnel: <i>S. Partyka</i>	

### Initial Readings

Measured Well Bottom (TOR-ft) <i>22.68</i>	Riser Pipe Diameter (in.) <i>2</i>
Measured Water Level (TOR-ft) <i>5.05</i>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required: <i>Needs Painted</i>		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK <input type="checkbox"/>	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<i>1050</i>			
Water Level Prior to Purging (TOR ft.)	<i>5.05</i>	Water Level After Purging (TOR ft.)		
Amount Purged:	Flow Rate (mL per minute): <i>~500</i>			
Comments:	<i>3PV = 8.75 gal</i>			

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<i>1</i>	<i>11.88</i>	<i>6.82</i>	<i>1.046</i>	<i>0.0</i>	<i>1.25</i>	<i>78.5</i>	<i>5.30</i>	
<i>2</i>	<i>11.94</i>	<i>6.83</i>	<i>1.037</i>	<i>0.0</i>	<i>1.13</i>	<i>50.0</i>	<i>5.30</i>	
<i>3</i>	<i>12.01</i>	<i>6.83</i>	<i>1.034</i>	<i>0.0</i>	<i>1.15</i>	<i>38.9</i>	<i>5.30</i>	

### Sampling Information

Date: <i>6-21-18</i>	Time Sampled: <i>1150</i>	Field Personnel: <i>SUP</i>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input checked="" type="checkbox"/> Stainless Steel Bailer	<input checked="" type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailer
Analysis: <i>Metals, Total Cyanide, Chloride and Sulfate</i>		
Sample ID: <i>P02-062118-1150</i>		
Odor: <i>None</i>	Appearance: <i>Clear</i>	
QA/QC Samples Taken: <i>7082-062118-0001</i>	<i>FIELD DUP</i>	
Comments:		

Sampler (Print) <i>Sam Partyka</i>	Sampler (signature): <i>[Signature]</i>	Date: <i>6-21-18</i>
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <i>P-00T</i>	Date: <i>6-21-18</i>	Time Started: <i>1200</i>	File Number: <b>129862-005</b>
Weather Conditions: <i>75°F Sunny</i>		Time Ended:	Field Personnel: <i>S. Partyka</i>

### Initial Readings

Measured Well Bottom (TOR-ft) <i>15.15</i>	Riser Pipe Diameter (in.) <i>2</i>
Measured Water Level (TOR-ft) <i>6.15</i>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)	<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:	
Other:	OK <input type="checkbox"/>	Repair Required:	

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<i>1205</i>			
Water Level Prior to Purging (TOR ft.) <i>6.15</i>	Water Level After Purging (TOR ft.)			
Amount Purged: <i>4.5</i>	Flow Rate (mL per minute): <i>500</i>			

Comments: *SPV = 4.5 gal*

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<i>1</i>	<i>12.92</i>	<i>6.56</i>	<i>1.684</i>	<i>35.3</i>	<i>1.27</i>	<i>150.7</i>	<i>16.16</i>	
<i>2</i>	<i>12.97</i>	<i>6.53</i>	<i>1.680</i>	<i>36.1</i>	<i>1.15</i>	<i>149.4</i>	<i>10.10</i>	
<i>3</i>	<i>12.88</i>	<i>6.51</i>	<i>1.669</i>	<i>37.2</i>	<i>1.17</i>	<i>146.1</i>	<i>10.10</i>	

### Sampling Information

Date: <i>6-21-18</i>	Time Sampled: <i>1240</i>	Field Personnel: <i>SNP</i>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input checked="" type="checkbox"/> Stainless Steel Bailor	<input checked="" type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailor	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailor
Analysis: <i>Metals, Total Cyanide, Chloride and Sulfate</i>		
Sample ID: <i>P02T-062118-1240</i>		
Odor: <i>None</i>	Appearance: <i>Clear</i>	
QA/QC Samples Taken: <i>None</i>		
Comments: <i>5micron used for Total Metals</i>		

Sampler (Print) <i>Sam Partyka</i>	Sampler (signature): <i>[Signature]</i>	Date: <i>6-21-18</i>
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**LOW-FLOW SAMPLING FIELD FORM**

Monitoring Well I.D.: P-12	Date: 6-21-18	Time Started: 1410	File Number: 129862-005
Weather Conditions:		Time Ended:	Field Personnel: S. Partyka

**Initial Readings**

Measured Well Bottom (TOR-ft) 22.53	Riser Pipe Diameter (in.) 2
Measured Water Level (TOR-ft) 4.34	
Notes:	

**Well Condition**

Well Riser Type (place an X in one box)	<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK		Repair Required:

**Purge Information**

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	1415			
Water Level Prior to Purging (TOR ft.) 4.34		Water Level After Purging (TOR ft.)		
Amount Purged:		Flow Rate (mL per minute):	~500	


Comments: 3PV = 9 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	12.02	6.95	0.728	318.0	3.73	134.5	10.22	
2	11.95	6.95	0.716	221.1	2.26	130.2	14.81	
3	11.82	6.94	0.704	126.2	1.45	123.6	17.55	

**Sampling Information**

Date: 6-21-18	Time Sampled: 1520	Field Personnel: SUP		
Measured Water Level (TOR ft): 17.55				
Sampling Method: (place X in box)	<input type="checkbox"/> Stainless Steel Bailor	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Teflon Bailor
	<input type="checkbox"/> Polyethylene Bailor	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Other:	

Analysis: Metals, Total Cyanide, Chloride and Sulfate	
Sample ID: P12-062118-1520	
Odor: None	Appearance: Clear
QA/QC Samples Taken: None	
Comments: Total metals 5mic. Filter / Dissolved .45 mic	

Sampler (Print) Sam Partyka	Sampler (signature): 	Date: 6-21-18
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <u>P-08R</u>	Date: <u>6-22-18</u>	Time Started: <u>1415</u>	File Number: <b>129862-005</b>
Weather Conditions:		Time Ended:	Field Personnel: <u>S. Partyka</u>

### Initial Readings

Measured Well Bottom (TOR-ft) <u>22.55</u>	Riser Pipe Diameter (in.) <u>2</u>
Measured Water Level (TOR-ft) <u>5.55</u>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK <input type="checkbox"/>	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<u>1420</u>			
Water Level Prior to Purging (TOR ft.)	Water Level After Purging (TOR ft.)			
Amount Purged:	Flow Rate (mL per minute): <u>500</u>			
Comments:	<u>3PV = 8.5 Gpyl</u>			

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<u>1</u>	<u>11.92</u>	<u>6.74</u>	<u>0.717</u>	<u>0.0</u>	<u>1.57</u>	<u>86.7</u>	<u>7.63</u>	
<u>2</u>	<u>11.91</u>	<u>6.77</u>	<u>0.746</u>	<u>0.0</u>	<u>0.92</u>	<u>72.2</u>	<u>7.75</u>	
<u>3</u>	<u>11.90</u>	<u>6.82</u>	<u>0.765</u>	<u>0.0</u>	<u>0.56</u>	<u>63.7</u>	<u>7.82</u>	

### Sampling Information

Date: <u>6-22-18</u>	Time Sampled: <u>1520</u>	Field Personnel: <u>SP</u>			
Measured Water Level (TOR ft):					
Sampling Method: (place X in box)		<input checked="" type="checkbox"/> Stainless Steel Bailer	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Teflon Bailer
		<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump	Other:	
Analysis: <u>Metals, Total Cyanide, Chloride and Sulfate</u>					
Sample ID: <u>P08R-062218-1520</u>					
Odor: <u>None</u>			Appearance: <u>Clear</u>		
QA/QC Samples Taken: <u>None</u>					
Comments:					

Sampler (Print) <u>Sam Partyka</u>	Sampler (signature): <u>[Signature]</u>	Date: <u>6-22-18</u>
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**LOW-FLOW SAMPLING FIELD FORM**

Monitoring Well I.D.: *P-08T*      Date: *6-22-18*      Time Started: *1330*      File Number: **129862-005**  
 Weather Conditions: \_\_\_\_\_      Time Ended: \_\_\_\_\_      Field Personnel: *S. Partyka*

**Initial Readings**

Measured Well Bottom (TOR-ft) *12.50*      Riser Pipe Diameter (in.) *2*  
 Measured Water Level (TOR-ft) *5.75*

Notes: \_\_\_\_\_

**Well Condition**

Well Riser Type (place an X in one box)       Stainless Steel       Carbon Steel       PVC

Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK	<input type="checkbox"/>	Repair Required:

**Purge Information**

Purging Method:     Peristaltic Pump     Bladder Pump     Grundfos Pump     Other: \_\_\_\_\_  
 Purge Start Time: *1330*  
 Water Level Prior to Purging (TOR ft.) *5.75*      Water Level After Purging (TOR ft.) \_\_\_\_\_  
 Amount Purged: \_\_\_\_\_      Flow Rate (mL per minute): *500*

Comments: *3PV = 3.5 gal*

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<i>1</i>	<i>14.82</i>	<i>6.74</i>	<i>0.637</i>	<i>1.1</i>	<i>1.12</i>	<i>103.8</i>	<i>6.50</i>	
<i>2</i>	<i>14.73</i>	<i>6.67</i>	<i>0.613</i>	<i>0.0</i>	<i>1.48</i>	<i>105.4</i>	<i>6.61</i>	
<i>3</i>	<i>14.67</i>	<i>6.60</i>	<i>0.602</i>	<i>0.0</i>	<i>1.92</i>	<i>107.6</i>	<i>6.82</i>	

**Sampling Information**

Date: *6-22-18*      Time Sampled: *1405*      Field Personnel: \_\_\_\_\_  
 Measured Water Level (TOR ft): \_\_\_\_\_

Sampling Method: (place X in box)       Stainless Steel Bailer     Peristaltic Pump     Grundfos Pump     Teflon Bailer  
     Polyethylene Bailer     Bladder Pump     Other: \_\_\_\_\_

Analysis: *Metals, Total Cyanide, Chloride and Sulfate*  
 Sample ID: *P08T-062218-1405*  
 Odor: *None*      Appearance: *Clear/Brown*  
 QA/QC Samples Taken: *None*  
 Comments: \_\_\_\_\_

Sampler (Print) *Sam Partyka*      Sampler (signature): *[Signature]*      Date: *6-22-18*

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: P-21T Date: 6-22-18 Time Started: 1235 File Number: 129862-005  
Weather Conditions: 72°F Overcast Time Ended: Field Personnel: S. Partyka

### Initial Readings

Measured Well Bottom (TOR-ft) 15.95 Riser Pipe Diameter (in.) 2  
Measured Water Level (TOR-ft) 8.78

Notes:

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition: OK  Repair Required:  
Cap Condition: OK  Repair Required:  
Paint Condition: OK  Repair Required:  
Lock Condition: OK  Repair Required:  
Inner Casing Condition: OK  Repair Required:  
Surface Seal Condition: OK  Repair Required:  
Other: OK  Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other:  
Purge Start Time: 1240  
Water Level Prior to Purging (TOR ft.) Water Level After Purging (TOR ft.)  
Amount Purged: Flow Rate (mL per minute):

Comments: 3PV = 3.50 Gals

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	13.35	6.69	1.420	12.4	1.11	5.1	11.10	
2	13.44	6.66	1.418	3.0	1.46	0.4	13.06	
3	13.57	6.64	1.411	0.0	1.81	-3.7	14.10	

### Sampling Information

Date: 6-22-18 Time Sampled: 1310 Field Personnel: SUP  
Measured Water Level (TOR ft):  
Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer  
 Polyethylene Bailer  Bladder Pump  Other:  
Analysis: Metals, Total Cyanide, Chloride and Sulfate  
Sample ID: P-21T-062218-1310  
Odor: None Appearance: Clear  
QA/QC Samples Taken: Field Dup 7082-062218-0002  
Comments:

Sampler (Print) Sam Partyka Sampler (signature): *[Signature]* Date: 6-22-18

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: P-21 Date: 6-22-18 Time Started: 1125 File Number: 129862-005  
Weather Conditions: Time Ended: Field Personnel: S. Partyka

### Initial Readings

Measured Well Bottom (TOR-ft) 24.05 Riser Pipe Diameter (in.) 2  
Measured Water Level (TOR-ft) 8.94  
Notes:

### Well Condition

Well Riser Type (place an X in one box)  Stainless Steel  Carbon Steel  PVC

Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Cap Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Paint Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Lock Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Inner Casing Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Surface Seal Condition:	OK	<input checked="" type="checkbox"/>	Repair Required:
Other:	OK		Repair Required:

### Purge Information

Purging Method:  Peristaltic Pump  Bladder Pump  Grundfos Pump  Other:  
Purge Start Time: 1130  
Water Level Prior to Purging (TOR ft.) Water Level After Purging (TOR ft.)  
Amount Purged: Flow Rate (mL per minute): 500

Comments: 3PV = 7.75 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
1	12.11	7.06	1.133	400.6	0.31	-68.8	14.00	
2	11.89	6.93	1.148	143.2	0.30	-60.1	14.50	
3	11.83	6.91	1.140	73.9	0.30	-60.1	14.62	

### Sampling Information

Date: 6-22-18 Time Sampled: 1225 Field Personnel: SUP  
Measured Water Level (TOR ft):  
Sampling Method: (place X in box)  Stainless Steel Bailer  Peristaltic Pump  Grundfos Pump  Teflon Bailer  
 Polyethylene Bailer  Bladder Pump  Other:  
Analysis: Metals, Total Cyanide, Chloride and Sulfate  
Sample ID: P21-062218-1225  
Odor: None Appearance: clear/Brown  
QA/QC Samples Taken: None

Comments:  
Sampler (Print) Sam Partyka Sampler (signature): [Signature] Date: 6-21-18

## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <u>P16T</u>	Date: <u>6-22-18</u>	Time Started: <u>1045</u>	File Number: <u>129862-005</u>
Weather Conditions:		Time Ended:	Field Personnel: <u>S. Partyka</u>

### Initial Readings

Measured Well Bottom (TOR-ft) <u>12.20</u>	Riser Pipe Diameter (in.) <u>2</u>
Measured Water Level (TOR-ft) <u>7.45</u>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:	<u>1050</u>			
Water Level Prior to Purging (TOR ft.)	<u>7.45</u>	Water Level After Purging (TOR ft.)		
Amount Purged:	Flow Rate (mL per minute): <u>500</u>			

Comments: ZPV = 2.5 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<u>1</u>	<u>13.90</u>	<u>7.08</u>	<u>1.182</u>	<u>3.7</u>	<u>2.74</u>	<u>120.2</u>	<u>9.26</u>	
<u>2</u>	<u>13.48</u>	<u>7.08</u>	<u>1.175</u>	<u>2.0</u>	<u>2.80</u>	<u>122.6</u>	<u>10.02</u>	
<u>3</u>	<u>13.15</u>	<u>7.07</u>	<u>1.174</u>	<u>0.0</u>	<u>2.26</u>	<u>126.8</u>	<u>10.64</u>	

### Sampling Information

Date: <u>6-22-18</u>	Time Sampled:	Field Personnel:			
Measured Water Level (TOR ft):					
Sampling Method: (place X in box)		<input checked="" type="checkbox"/> Stainless Steel Bailor	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Teflon Bailor
		<input type="checkbox"/> Polyethylene Bailor	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Other:	
Analysis: <u>Metals, Total Cyanide, Chloride and Sulfate</u>					
Sample ID: <u>P16T-062218-1115</u>					
Odor: <u>None</u>			Appearance: <u>Clear</u>		
QA/QC Samples Taken: <u>None</u>					
Comments:					

Sampler (Print) <u>Sam Partyka</u>	Sampler (signature):	Date: <u>6-22-18</u>
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## LOW-FLOW SAMPLING FIELD FORM

Monitoring Well I.D.: <u>P-18</u>	Date: <u>6-22-18</u>	Time Started: <u>0850</u>	File Number: <u>129862-005</u>
Weather Conditions:		Time Ended:	Field Personnel: <u>S. Partyka</u>

### Initial Readings

Measured Well Bottom (TOR-ft) <u>31.25</u>	Riser Pipe Diameter (in.) <u>2</u>
Measured Water Level (TOR-ft) <u>5.05</u>	
Notes:	

### Well Condition

Well Riser Type (place an X in one box)		<input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Carbon Steel	<input checked="" type="checkbox"/> PVC
Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Cap Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Paint Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Lock Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Inner Casing Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Surface Seal Condition:	OK <input checked="" type="checkbox"/>	Repair Required:		
Other:	OK	Repair Required:		

### Purge Information

Purging Method:	<input checked="" type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Grundfos Pump	<input type="checkbox"/> Other:
Purge Start Time:				
Water Level Prior to Purging (TOR ft.)			Water Level After Purging (TOR ft.)	
Amount Purged:	Flow Rate (mL per minute):			

Comments: 3PV = 12.75 gal

Time Elapsed (min)	Temperature (deg C)	pH	Conductivity (mS/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	Redox (ORP)	Water Level (TOR ft)	Comments
<u>1</u>	<u>14.88</u>	<u>8.07</u>	<u>1.272</u>	<u>15.9</u>	<u>2.51</u>	<u>42.4</u>	<u>10.22</u>	
<u>2</u>	<u>14.22</u>	<u>8.04</u>	<u>1.273</u>	<u>17.0</u>	<u>1.26</u>	<u>66.9</u>	<u>12.16</u>	
<u>3</u>	<u>13.20</u>	<u>8.04</u>	<u>1.273</u>	<u>16.1</u>	<u>0.80</u>	<u>106.8</u>	<u>14.89</u>	

### Sampling Information

Date: <u>6-22-18</u>	Time Sampled: <u>1025</u>	Field Personnel: <u>SP</u>
Measured Water Level (TOR ft):		
Sampling Method: (place X in box)	<input checked="" type="checkbox"/> Stainless Steel Bailer	<input checked="" type="checkbox"/> Peristaltic Pump
	<input type="checkbox"/> Polyethylene Bailer	<input type="checkbox"/> Bladder Pump
		<input type="checkbox"/> Grundfos Pump
		<input type="checkbox"/> Teflon Bailer
Analysis: <u>Metals, Total Cyanide, Chloride and Sulfate</u>		
Sample ID: <u>P76-062218-1025/FF</u>		
Odor: <u>None</u>	Appearance: <u>Clear</u>	
QA/QC Samples Taken: <u>Equipment Blank 7082-062218-0001</u>		
Comments: <u>FF Total metals u/5 micron</u>		

Sampler (Print) <u>Sam Partyka</u>	Sampler (signature): 	Date: <u>6-22-18</u>
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**APPENDIX D**

**Laboratory Analytical Report**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

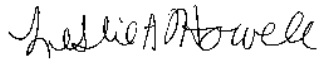
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Canton  
4101 Shuffel Street NW  
North Canton, OH 44720  
Tel: (330)497-9396

TestAmerica Job ID: 240-97605-1  
Client Project/Site: Racer Elyria

For:  
Haley & Aldrich, Inc.  
6500 Rockside Road  
Suite 200  
Cleveland, Ohio 44131

Attn: Lloyd Ross



---

Authorized for release by:  
7/6/2018 3:07:06 PM

Leslie Howell, Project Manager I  
(330)497-9396  
[leslie.howell@testamericainc.com](mailto:leslie.howell@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*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.*

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# Definitions/Glossary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Qualifiers

### 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.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
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: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Job ID: 240-97605-1**

**Laboratory: TestAmerica Canton**

**Narrative**

## CASE NARRATIVE

**Client: Haley & Aldrich, Inc.**

**Project: Racer Elyria**

**Report Number: 240-97605-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

### **RECEIPT**

The samples were received on 6/23/2018 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 2.8° C, 3.4° C and 3.6° C.

### **DISSOLVED METALS (ICP)**

Samples P14T-062018-0945 FF (240-97605-2), P12TR-062018-1135 FF (240-97605-4), P15-062018-1245 FF (240-97605-6), P15T-062018-1355 FF (240-97605-8), P18T-062018-1505 FF (240-97605-10), P14-062018-1050 FF (240-97605-12), P3R-062118-0945 FF (240-97605-14), P3T-062118-1035 FF (240-97605-16), P02-062118-1150 FF (240-97605-18), 7082-062118-0001 FF (240-97605-20), P02T-062118-1240 FF (240-97605-22), P16-062118-1400 FF (240-97605-24), P12-062118-1520 FF (240-97605-26), P18-062218-1025 FF (240-97605-28), P16T-062218-1115 FF (240-97605-31), P21-062218-1225 FF (240-97605-33), P21T-062218-1310 FF (240-97605-35), 7082-062218-0002 FF (240-97605-37), P08T-062218-1405 FF (240-97605-39) and P08R-062218-1520 FF (240-97605-41) were analyzed for dissolved metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 06/25/2018 and analyzed on 06/30/2018.

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

### **TOTAL RECOVERABLE METALS (ICP)**

Samples P14T-062018-0945 (240-97605-1), P12TR-062018-1135 (240-97605-3), P15-062018-1245 (240-97605-5), P15T-062018-1355

# Case Narrative

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Job ID: 240-97605-1 (Continued)

### Laboratory: TestAmerica Canton (Continued)

(240-97605-7), P18T-062018-1505 (240-97605-9), P14-062018-1050 (240-97605-11), P3R-062118-0945 (240-97605-13), P3T-062118-1035 (240-97605-15), P02-062118-1150 (240-97605-17), 7082-062118-0001 (240-97605-19), P02T-062118-1240 (240-97605-21), P16-062118-1400 (240-97605-23), P12-062118-1520 (240-97605-25), P18-062218-1025 (240-97605-27), 7082-062218-0001 (240-97605-29), P16T-062218-1115 (240-97605-30), P21-062218-1225 (240-97605-32), P21T-062218-1310 (240-97605-34), 7082-062218-0002 (240-97605-36), P08T-062218-1405 (240-97605-38) and P08R-062218-1520 (240-97605-40) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 06/25/2018 and 06/26/2018 and analyzed on 06/27/2018 and 06/29/2018.

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

### ANIONS

Samples P14T-062018-0945 (240-97605-1), P12TR-062018-1135 (240-97605-3), P15-062018-1245 (240-97605-5), P15T-062018-1355 (240-97605-7), P18T-062018-1505 (240-97605-9), P14-062018-1050 (240-97605-11), P3R-062118-0945 (240-97605-13), P3T-062118-1035 (240-97605-15), P02-062118-1150 (240-97605-17), 7082-062118-0001 (240-97605-19), P02T-062118-1240 (240-97605-21), P16-062118-1400 (240-97605-23), P12-062118-1520 (240-97605-25), P18-062218-1025 (240-97605-27), 7082-062218-0001 (240-97605-29), P16T-062218-1115 (240-97605-30), P21-062218-1225 (240-97605-32), P21T-062218-1310 (240-97605-34), 7082-062218-0002 (240-97605-36), P08T-062218-1405 (240-97605-38) and P08R-062218-1520 (240-97605-40) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 07/04/2018 and 07/05/2018.

Samples P15-062018-1245 (240-97605-5)[5X], P15T-062018-1355 (240-97605-7)[5X], P18T-062018-1505 (240-97605-9)[5X], P3R-062118-0945 (240-97605-13)[5X], P3T-062118-1035 (240-97605-15)[10X], P02-062118-1150 (240-97605-17)[5X], 7082-062118-0001 (240-97605-19)[5X], P02T-062118-1240 (240-97605-21)[10X], P16-062118-1400 (240-97605-23)[10X], P18-062218-1025 (240-97605-27)[5X], P16T-062218-1115 (240-97605-30)[5X], P21-062218-1225 (240-97605-32)[5X], P21T-062218-1310 (240-97605-34)[5X] and 7082-062218-0002 (240-97605-36)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### TOTAL CYANIDE

Samples P14T-062018-0945 (240-97605-1), P12TR-062018-1135 (240-97605-3), P15-062018-1245 (240-97605-5), P15T-062018-1355 (240-97605-7), P18T-062018-1505 (240-97605-9), P14-062018-1050 (240-97605-11), P3R-062118-0945 (240-97605-13), P3T-062118-1035 (240-97605-15), P02-062118-1150 (240-97605-17), 7082-062118-0001 (240-97605-19), P02T-062118-1240 (240-97605-21), P16-062118-1400 (240-97605-23), P12-062118-1520 (240-97605-25), P18-062218-1025 (240-97605-27), 7082-062218-0001 (240-97605-29), P16T-062218-1115 (240-97605-30), P21-062218-1225 (240-97605-32), P21T-062218-1310 (240-97605-34), 7082-062218-0002 (240-97605-36), P08T-062218-1405 (240-97605-38) and P08R-062218-1520 (240-97605-40) were analyzed for total cyanide in accordance with SM 4500\_CN-E. The samples were prepared and analyzed on 07/02/2018 and 07/03/2018.

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

# Method Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 CN E-2011	Cyanide, Total: Colorimetric Method	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
Distill/CN	Distillation, Cyanide	None	TAL CAN

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

#### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Sample Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-97605-1	P14T-062018-0945	Water	06/20/18 09:45	06/23/18 09:45
240-97605-2	P14T-062018-0945 FF	Water	06/20/18 09:45	06/23/18 09:45
240-97605-3	P12TR-062018-1135	Water	06/20/18 11:35	06/23/18 09:45
240-97605-4	P12TR-062018-1135 FF	Water	06/20/18 11:35	06/23/18 09:45
240-97605-5	P15-062018-1245	Water	06/20/18 12:45	06/23/18 09:45
240-97605-6	P15-062018-1245 FF	Water	06/20/18 12:45	06/23/18 09:45
240-97605-7	P15T-062018-1355	Water	06/20/18 13:55	06/23/18 09:45
240-97605-8	P15T-062018-1355 FF	Water	06/20/18 13:55	06/23/18 09:45
240-97605-9	P18T-062018-1505	Water	06/20/18 15:05	06/23/18 09:45
240-97605-10	P18T-062018-1505 FF	Water	06/20/18 15:05	06/23/18 09:45
240-97605-11	P14-062018-1050	Water	06/20/18 10:50	06/23/18 09:45
240-97605-12	P14-062018-1050 FF	Water	06/20/18 10:50	06/23/18 09:45
240-97605-13	P3R-062118-0945	Water	06/21/18 09:45	06/23/18 09:45
240-97605-14	P3R-062118-0945 FF	Water	06/21/18 09:45	06/23/18 09:45
240-97605-15	P3T-062118-1035	Water	06/21/18 10:35	06/23/18 09:45
240-97605-16	P3T-062118-1035 FF	Water	06/21/18 10:35	06/23/18 09:45
240-97605-17	P02-062118-1150	Water	06/21/18 11:50	06/23/18 09:45
240-97605-18	P02-062118-1150 FF	Water	06/21/18 11:50	06/23/18 09:45
240-97605-19	7082-062118-0001	Water	06/21/18 00:00	06/23/18 09:45
240-97605-20	7082-062118-0001 FF	Water	06/21/18 00:00	06/23/18 09:45
240-97605-21	P02T-062118-1240	Water	06/21/18 12:40	06/23/18 09:45
240-97605-22	P02T-062118-1240 FF	Water	06/21/18 12:40	06/23/18 09:45
240-97605-23	P16-062118-1400	Water	06/21/18 14:00	06/23/18 09:45
240-97605-24	P16-062118-1400 FF	Water	06/21/18 14:00	06/23/18 09:45
240-97605-25	P12-062118-1520	Water	06/21/18 15:20	06/23/18 09:45
240-97605-26	P12-062118-1520 FF	Water	06/21/18 15:20	06/23/18 09:45
240-97605-27	P18-062218-1025	Water	06/22/18 10:25	06/23/18 09:45
240-97605-28	P18-062218-1025 FF	Water	06/22/18 10:25	06/23/18 09:45
240-97605-29	7082-062218-0001	Water	06/22/18 10:35	06/23/18 09:45
240-97605-30	P16T-062218-1115	Water	06/22/18 11:15	06/23/18 09:45
240-97605-31	P16T-062218-1115 FF	Water	06/22/18 11:15	06/23/18 09:45
240-97605-32	P21-062218-1225	Water	06/22/18 12:25	06/23/18 09:45
240-97605-33	P21-062218-1225 FF	Water	06/22/18 12:25	06/23/18 09:45
240-97605-34	P21T-062218-1310	Water	06/22/18 13:10	06/23/18 09:45
240-97605-35	P21T-062218-1310 FF	Water	06/22/18 13:10	06/23/18 09:45
240-97605-36	7082-062218-0002	Water	06/22/18 00:00	06/23/18 09:45
240-97605-37	7082-062218-0002 FF	Water	06/22/18 00:00	06/23/18 09:45
240-97605-38	P08T-062218-1405	Water	06/22/18 14:05	06/23/18 09:45
240-97605-39	P08T-062218-1405 FF	Water	06/22/18 14:05	06/23/18 09:45
240-97605-40	P08R-062218-1520	Water	06/22/18 15:20	06/23/18 09:45
240-97605-41	P08R-062218-1520 FF	Water	06/22/18 15:20	06/23/18 09:45

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P14T-062018-0945

## Lab Sample ID: 240-97605-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	73	J	200	1.3	ug/L	1		6010B	Total
Calcium	71000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	2.2	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	9100		100	26	ug/L	1		6010B	Total Recoverable
Potassium	2000	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	8500		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	3100		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	5600		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	5.4	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	3.2		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	24		1.0	0.35	mg/L	1		300.0	Total/NA

## Client Sample ID: P14T-062018-0945 FF

## Lab Sample ID: 240-97605-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	94	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	68000		5000	310	ug/L	1		6010B	Dissolved
Chromium	1.5	J	5.0	0.63	ug/L	1		6010B	Dissolved
Iron	7000		100	26	ug/L	1		6010B	Dissolved
Potassium	1900	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	8100		5000	780	ug/L	1		6010B	Dissolved
Manganese	4700		15	2.1	ug/L	1		6010B	Dissolved
Sodium	5500		5000	560	ug/L	1		6010B	Dissolved
Nickel	6.9	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P12TR-062018-1135

## Lab Sample ID: 240-97605-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	82	J	200	1.3	ug/L	1		6010B	Total
Calcium	130000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	0.78	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	450		100	26	ug/L	1		6010B	Total Recoverable
Potassium	2600	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	30000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	84		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	55000		5000	560	ug/L	1		6010B	Total Recoverable
Chloride	14		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	98		1.0	0.35	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P12TR-062018-1135 FF

## Lab Sample ID: 240-97605-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	76	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	120000		5000	310	ug/L	1		6010B	Dissolved
Iron	100		100	26	ug/L	1		6010B	Dissolved
Potassium	2400	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	29000		5000	780	ug/L	1		6010B	Dissolved
Manganese	70		15	2.1	ug/L	1		6010B	Dissolved
Sodium	52000		5000	560	ug/L	1		6010B	Dissolved

## Client Sample ID: P15-062018-1245

## Lab Sample ID: 240-97605-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	85	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	160000		5000	310	ug/L	1		6010B	Total Recoverable
Iron	2700		100	26	ug/L	1		6010B	Total Recoverable
Potassium	3800	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	31000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	1800		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	18000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	2.3	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	7.4		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	180		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P15-062018-1245 FF

## Lab Sample ID: 240-97605-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	72	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	170000		5000	310	ug/L	1		6010B	Dissolved
Iron	2300		100	26	ug/L	1		6010B	Dissolved
Potassium	4900	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	36000		5000	780	ug/L	1		6010B	Dissolved
Manganese	3000		15	2.1	ug/L	1		6010B	Dissolved
Sodium	16000		5000	560	ug/L	1		6010B	Dissolved
Nickel	3.4	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P15T-062018-1355

## Lab Sample ID: 240-97605-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	73	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	200000		5000	310	ug/L	1		6010B	Total Recoverable
Iron	1600		100	26	ug/L	1		6010B	Total Recoverable
Potassium	2400	J	5000	560	ug/L	1		6010B	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P15T-062018-1355 (Continued)

## Lab Sample ID: 240-97605-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	44000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	1000		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	18000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	7.2	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	8.5		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	260		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P15T-062018-1355 FF

## Lab Sample ID: 240-97605-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	69	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	190000		5000	310	ug/L	1		6010B	Dissolved
Iron	1400		100	26	ug/L	1		6010B	Dissolved
Potassium	2300	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	41000		5000	780	ug/L	1		6010B	Dissolved
Manganese	980		15	2.1	ug/L	1		6010B	Dissolved
Sodium	18000		5000	560	ug/L	1		6010B	Dissolved
Nickel	7.4	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P18T-062018-1505

## Lab Sample ID: 240-97605-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	60	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	77000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	2.8	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	2200		100	26	ug/L	1		6010B	Total Recoverable
Potassium	5400		5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	23000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	90		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	130000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	110		40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	41		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	150		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P18T-062018-1505 FF

## Lab Sample ID: 240-97605-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	59	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	77000		5000	310	ug/L	1		6010B	Dissolved
Iron	920		100	26	ug/L	1		6010B	Dissolved
Potassium	5000		5000	560	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P18T-062018-1505 FF (Continued)

## Lab Sample ID: 240-97605-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	23000		5000	780	ug/L	1		6010B	Dissolved
Manganese	87		15	2.1	ug/L	1		6010B	Dissolved
Sodium	130000		5000	560	ug/L	1		6010B	Dissolved
Nickel	110		40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P14-062018-1050

## Lab Sample ID: 240-97605-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	57	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	110000		5000	310	ug/L	1		6010B	Total Recoverable
Iron	2700		100	26	ug/L	1		6010B	Total Recoverable
Potassium	1300	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	24000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	160		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	8700		5000	560	ug/L	1		6010B	Total Recoverable
Chloride	6.1		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	52		1.0	0.35	mg/L	1		300.0	Total/NA

## Client Sample ID: P14-062018-1050 FF

## Lab Sample ID: 240-97605-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	55	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	110000		5000	310	ug/L	1		6010B	Dissolved
Iron	1700		100	26	ug/L	1		6010B	Dissolved
Potassium	1300	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	24000		5000	780	ug/L	1		6010B	Dissolved
Manganese	160		15	2.1	ug/L	1		6010B	Dissolved
Sodium	8600		5000	560	ug/L	1		6010B	Dissolved

## Client Sample ID: P3R-062118-0945

## Lab Sample ID: 240-97605-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	38	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	28000		5000	310	ug/L	1		6010B	Total Recoverable
Iron	130		100	26	ug/L	1		6010B	Total Recoverable
Potassium	4100	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	20000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	11	J	15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	300000		5000	560	ug/L	1		6010B	Total Recoverable
Chloride	35		5.0	1.4	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P3R-062118-0945 (Continued)

## Lab Sample ID: 240-97605-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	140		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P3R-062118-0945 FF

## Lab Sample ID: 240-97605-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	37	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	27000		5000	310	ug/L	1		6010B	Dissolved
Potassium	3900	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	19000		5000	780	ug/L	1		6010B	Dissolved
Manganese	12	J	15	2.1	ug/L	1		6010B	Dissolved
Sodium	290000		5000	560	ug/L	1		6010B	Dissolved

## Client Sample ID: P3T-062118-1035

## Lab Sample ID: 240-97605-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	24	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	190000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.4	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	670		100	26	ug/L	1		6010B	Total Recoverable
Potassium	1900	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	100000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	37		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	180000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	3.7	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	7.4	J	10	2.8	mg/L	10		300.0	Total/NA
Sulfate	850		10	3.5	mg/L	10		300.0	Total/NA

## Client Sample ID: P3T-062118-1035 FF

## Lab Sample ID: 240-97605-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	19	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	180000		5000	310	ug/L	1		6010B	Dissolved
Potassium	1700	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	94000		5000	780	ug/L	1		6010B	Dissolved
Sodium	180000		5000	560	ug/L	1		6010B	Dissolved
Nickel	3.4	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P02-062118-1150

## Lab Sample ID: 240-97605-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	64	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	140000		5000	310	ug/L	1		6010B	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P02-062118-1150 (Continued)

## Lab Sample ID: 240-97605-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	720		100	26	ug/L	1		6010B	Total Recoverable
Potassium	4000	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	46000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	450		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	110000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	5.7	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	43		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	310		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P02-062118-1150 FF

## Lab Sample ID: 240-97605-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	61	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	130000		5000	310	ug/L	1		6010B	Dissolved
Iron	680		100	26	ug/L	1		6010B	Dissolved
Potassium	3900	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	45000		5000	780	ug/L	1		6010B	Dissolved
Manganese	400		15	2.1	ug/L	1		6010B	Dissolved
Sodium	110000		5000	560	ug/L	1		6010B	Dissolved
Nickel	5.9	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: 7082-062118-0001

## Lab Sample ID: 240-97605-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	64	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	130000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.3	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	690		100	26	ug/L	1		6010B	Total Recoverable
Potassium	4000	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	45000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	440		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	110000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	7.0	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	44		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	310		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: 7082-062118-0001 FF

## Lab Sample ID: 240-97605-20

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: 7082-062118-0001 FF (Continued)

## Lab Sample ID: 240-97605-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	63	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	130000		5000	310	ug/L	1		6010B	Dissolved
Iron	690		100	26	ug/L	1		6010B	Dissolved
Potassium	4000	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	45000		5000	780	ug/L	1		6010B	Dissolved
Manganese	410		15	2.1	ug/L	1		6010B	Dissolved
Sodium	120000		5000	560	ug/L	1		6010B	Dissolved
Nickel	6.0	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P02T-062118-1240

## Lab Sample ID: 240-97605-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	21	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	310000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.6	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	1400		100	26	ug/L	1		6010B	Total Recoverable
Potassium	1800	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	120000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	690		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	44000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	16	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	86		10	2.8	mg/L	10		300.0	Total/NA
Sulfate	960		10	3.5	mg/L	10		300.0	Total/NA

## Client Sample ID: P02T-062118-1240 FF

## Lab Sample ID: 240-97605-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	17	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	310000		5000	310	ug/L	1		6010B	Dissolved
Iron	610		100	26	ug/L	1		6010B	Dissolved
Potassium	1400	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	120000		5000	780	ug/L	1		6010B	Dissolved
Manganese	750		15	2.1	ug/L	1		6010B	Dissolved
Sodium	44000		5000	560	ug/L	1		6010B	Dissolved
Nickel	14	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P16-062118-1400

## Lab Sample ID: 240-97605-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	32	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	240000		5000	310	ug/L	1		6010B	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P16-062118-1400 (Continued)

## Lab Sample ID: 240-97605-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3000		100	26	ug/L		1	6010B	Total Recoverable
Potassium	2600	J	5000	560	ug/L		1	6010B	Total Recoverable
Magnesium	69000		5000	780	ug/L		1	6010B	Total Recoverable
Manganese	190		15	2.1	ug/L		1	6010B	Total Recoverable
Sodium	74000		5000	560	ug/L		1	6010B	Total Recoverable
Nickel	180		40	2.2	ug/L		1	6010B	Total Recoverable
Chloride	45		10	2.8	mg/L	10		300.0	Total/NA
Sulfate	510		10	3.5	mg/L	10		300.0	Total/NA

## Client Sample ID: P16-062118-1400 FF

## Lab Sample ID: 240-97605-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	30	J	200	1.3	ug/L		1	6010B	Dissolved
Calcium	230000		5000	310	ug/L		1	6010B	Dissolved
Iron	2300		100	26	ug/L		1	6010B	Dissolved
Potassium	2400	J	5000	560	ug/L		1	6010B	Dissolved
Magnesium	67000		5000	780	ug/L		1	6010B	Dissolved
Manganese	170		15	2.1	ug/L		1	6010B	Dissolved
Sodium	70000		5000	560	ug/L		1	6010B	Dissolved
Nickel	150		40	2.2	ug/L		1	6010B	Dissolved

## Client Sample ID: P12-062118-1520

## Lab Sample ID: 240-97605-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	39	J	200	1.3	ug/L		1	6010B	Total Recoverable
Calcium	88000		5000	310	ug/L		1	6010B	Total Recoverable
Chromium	1.5	J	5.0	0.63	ug/L		1	6010B	Total Recoverable
Iron	840		100	26	ug/L		1	6010B	Total Recoverable
Potassium	4200	J	5000	560	ug/L		1	6010B	Total Recoverable
Magnesium	22000		5000	780	ug/L		1	6010B	Total Recoverable
Manganese	95		15	2.1	ug/L		1	6010B	Total Recoverable
Sodium	86000		5000	560	ug/L		1	6010B	Total Recoverable
Nickel	3.3	J	40	2.2	ug/L		1	6010B	Total Recoverable
Chloride	21		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	82		1.0	0.35	mg/L	1		300.0	Total/NA

## Client Sample ID: P12-062118-1520 FF

## Lab Sample ID: 240-97605-26

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P12-062118-1520 FF (Continued)

## Lab Sample ID: 240-97605-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	36	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	91000		5000	310	ug/L	1		6010B	Dissolved
Iron	28	J	100	26	ug/L	1		6010B	Dissolved
Potassium	3800	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	22000		5000	780	ug/L	1		6010B	Dissolved
Manganese	89		15	2.1	ug/L	1		6010B	Dissolved
Sodium	83000		5000	560	ug/L	1		6010B	Dissolved

## Client Sample ID: P18-062218-1025

## Lab Sample ID: 240-97605-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	6.4	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	7300		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.1	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	480		100	26	ug/L	1		6010B	Total Recoverable
Potassium	3600	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	2200	J	5000	780	ug/L	1		6010B	Total Recoverable
Manganese	36		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	320000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	210		40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	35		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	170		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P18-062218-1025 FF

## Lab Sample ID: 240-97605-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	4.3	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	7000		5000	310	ug/L	1		6010B	Dissolved
Potassium	3400	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	2000	J	5000	780	ug/L	1		6010B	Dissolved
Manganese	34		15	2.1	ug/L	1		6010B	Dissolved
Sodium	340000		5000	560	ug/L	1		6010B	Dissolved
Nickel	210		40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: 7082-062218-0001

## Lab Sample ID: 240-97605-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	580	J	5000	560	ug/L	1		6010B	Total Recoverable

## Client Sample ID: P16T-062218-1115

## Lab Sample ID: 240-97605-30

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P16T-062218-1115 (Continued)

## Lab Sample ID: 240-97605-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	19	J	200	1.3	ug/L	1		6010B	Total
Calcium	180000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	0.64	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	84	J	100	26	ug/L	1		6010B	Total Recoverable
Potassium	1200	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	49000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	5.2	J	15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	67000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	17	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	5.4		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	410		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P16T-062218-1115 FF

## Lab Sample ID: 240-97605-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	19	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	180000		5000	310	ug/L	1		6010B	Dissolved
Potassium	1200	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	50000		5000	780	ug/L	1		6010B	Dissolved
Sodium	69000		5000	560	ug/L	1		6010B	Dissolved
Nickel	17	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P21-062218-1225

## Lab Sample ID: 240-97605-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	55	J	200	1.3	ug/L	1		6010B	Total
Calcium	140000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	0.89	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	980		100	26	ug/L	1		6010B	Total Recoverable
Potassium	3900	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	35000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	110		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	160000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	150		40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	81		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	200		5.0	1.7	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P21-062218-1225 FF

## Lab Sample ID: 240-97605-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	53	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	130000		5000	310	ug/L	1		6010B	Dissolved
Iron	940		100	26	ug/L	1		6010B	Dissolved
Potassium	3600	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	33000		5000	780	ug/L	1		6010B	Dissolved
Manganese	110		15	2.1	ug/L	1		6010B	Dissolved
Sodium	150000		5000	560	ug/L	1		6010B	Dissolved
Nickel	140		40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P21T-062218-1310

## Lab Sample ID: 240-97605-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	35	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	210000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.0	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	750		100	26	ug/L	1		6010B	Total Recoverable
Potassium	2200	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	52000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	560		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	160000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	260		40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	70		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	460		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: P21T-062218-1310 FF

## Lab Sample ID: 240-97605-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	31	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	210000		5000	310	ug/L	1		6010B	Dissolved
Chromium	1.2	J	5.0	0.63	ug/L	1		6010B	Dissolved
Iron	600		100	26	ug/L	1		6010B	Dissolved
Potassium	2000	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	52000		5000	780	ug/L	1		6010B	Dissolved
Manganese	600		15	2.1	ug/L	1		6010B	Dissolved
Sodium	150000		5000	560	ug/L	1		6010B	Dissolved
Nickel	280		40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: 7082-062218-0002

## Lab Sample ID: 240-97605-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	35	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	210000		5000	310	ug/L	1		6010B	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: 7082-062218-0002 (Continued)

## Lab Sample ID: 240-97605-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.5	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	820		100	26	ug/L	1		6010B	Total Recoverable
Potassium	2300	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	52000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	570		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	150000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	270		40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	69		5.0	1.4	mg/L	5		300.0	Total/NA
Sulfate	460		5.0	1.7	mg/L	5		300.0	Total/NA

## Client Sample ID: 7082-062218-0002 FF

## Lab Sample ID: 240-97605-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	30	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	200000		5000	310	ug/L	1		6010B	Dissolved
Chromium	0.94	J	5.0	0.63	ug/L	1		6010B	Dissolved
Iron	570		100	26	ug/L	1		6010B	Dissolved
Potassium	2000	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	50000		5000	780	ug/L	1		6010B	Dissolved
Manganese	540		15	2.1	ug/L	1		6010B	Dissolved
Sodium	140000		5000	560	ug/L	1		6010B	Dissolved
Nickel	260		40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P08T-062218-1405

## Lab Sample ID: 240-97605-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	64	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	78000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	0.76	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	42	J	100	26	ug/L	1		6010B	Total Recoverable
Potassium	6700		5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	29000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	120		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	17000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	3.1	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	26		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	65		1.0	0.35	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Detection Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Client Sample ID: P08T-062218-1405 FF

## Lab Sample ID: 240-97605-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	63	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	77000		5000	310	ug/L	1		6010B	Dissolved
Potassium	6600		5000	560	ug/L	1		6010B	Dissolved
Magnesium	29000		5000	780	ug/L	1		6010B	Dissolved
Manganese	91		15	2.1	ug/L	1		6010B	Dissolved
Sodium	16000		5000	560	ug/L	1		6010B	Dissolved
Nickel	3.6	J	40	2.2	ug/L	1		6010B	Dissolved

## Client Sample ID: P08R-062218-1520

## Lab Sample ID: 240-97605-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	71	J	200	1.3	ug/L	1		6010B	Total Recoverable
Calcium	89000		5000	310	ug/L	1		6010B	Total Recoverable
Chromium	1.3	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Iron	180		100	26	ug/L	1		6010B	Total Recoverable
Potassium	3900	J	5000	560	ug/L	1		6010B	Total Recoverable
Magnesium	26000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	120		15	2.1	ug/L	1		6010B	Total Recoverable
Sodium	88000		5000	560	ug/L	1		6010B	Total Recoverable
Nickel	6.6	J	40	2.2	ug/L	1		6010B	Total Recoverable
Chloride	68		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	69		1.0	0.35	mg/L	1		300.0	Total/NA

## Client Sample ID: P08R-062218-1520 FF

## Lab Sample ID: 240-97605-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	76	J	200	1.3	ug/L	1		6010B	Dissolved
Calcium	88000		5000	310	ug/L	1		6010B	Dissolved
Iron	150		100	26	ug/L	1		6010B	Dissolved
Potassium	3900	J	5000	560	ug/L	1		6010B	Dissolved
Magnesium	25000		5000	780	ug/L	1		6010B	Dissolved
Manganese	120		15	2.1	ug/L	1		6010B	Dissolved
Sodium	93000		5000	560	ug/L	1		6010B	Dissolved
Nickel	7.1	J	40	2.2	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P14T-062018-0945**

**Lab Sample ID: 240-97605-1**

**Date Collected: 06/20/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

**Method: 6010B - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	73	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:13	1
Calcium	71000		5000	310	ug/L		06/26/18 14:00	06/29/18 05:13	1
Chromium	2.2	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:13	1
Iron	9100		100	26	ug/L		06/26/18 14:00	06/29/18 05:13	1
Potassium	2000	J	5000	560	ug/L		06/26/18 14:00	06/29/18 05:13	1
Magnesium	8500		5000	780	ug/L		06/26/18 14:00	06/29/18 05:13	1
Manganese	3100		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:13	1
Sodium	5600		5000	560	ug/L		06/26/18 14:00	06/29/18 05:13	1
Nickel	5.4	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		1.0	0.28	mg/L			07/04/18 09:04	1
Sulfate	24		1.0	0.35	mg/L			07/04/18 09:04	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/02/18 10:46	07/02/18 12:08	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P14T-062018-0945 FF**

**Lab Sample ID: 240-97605-2**

**Date Collected: 06/20/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	94	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 05:51	1
Calcium	68000		5000	310	ug/L		06/25/18 14:00	06/30/18 05:51	1
Chromium	1.5	J	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 05:51	1
Iron	7000		100	26	ug/L		06/25/18 14:00	06/30/18 05:51	1
Potassium	1900	J	5000	560	ug/L		06/25/18 14:00	06/30/18 05:51	1
Magnesium	8100		5000	780	ug/L		06/25/18 14:00	06/30/18 05:51	1
Manganese	4700		15	2.1	ug/L		06/25/18 14:00	06/30/18 05:51	1
Sodium	5500		5000	560	ug/L		06/25/18 14:00	06/30/18 05:51	1
Nickel	6.9	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 05:51	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P12TR-062018-1135**

**Lab Sample ID: 240-97605-3**

**Date Collected: 06/20/18 11:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

**Method: 6010B - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	82	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:19	1
Calcium	130000		5000	310	ug/L		06/26/18 14:00	06/29/18 05:19	1
Chromium	0.78	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:19	1
Iron	450		100	26	ug/L		06/26/18 14:00	06/29/18 05:19	1
Potassium	2600	J	5000	560	ug/L		06/26/18 14:00	06/29/18 05:19	1
Magnesium	30000		5000	780	ug/L		06/26/18 14:00	06/29/18 05:19	1
Manganese	84		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:19	1
Sodium	55000		5000	560	ug/L		06/26/18 14:00	06/29/18 05:19	1
Nickel	40	U	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		1.0	0.28	mg/L			07/04/18 08:44	1
Sulfate	98		1.0	0.35	mg/L			07/04/18 08:44	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:19	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P12TR-062018-1135 FF**

**Lab Sample ID: 240-97605-4**

**Date Collected: 06/20/18 11:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	76	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 05:56	1
Calcium	120000		5000	310	ug/L		06/25/18 14:00	06/30/18 05:56	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 05:56	1
Iron	100		100	26	ug/L		06/25/18 14:00	06/30/18 05:56	1
Potassium	2400	J	5000	560	ug/L		06/25/18 14:00	06/30/18 05:56	1
Magnesium	29000		5000	780	ug/L		06/25/18 14:00	06/30/18 05:56	1
Manganese	70		15	2.1	ug/L		06/25/18 14:00	06/30/18 05:56	1
Sodium	52000		5000	560	ug/L		06/25/18 14:00	06/30/18 05:56	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/30/18 05:56	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P15-062018-1245**

**Lab Sample ID: 240-97605-5**

**Date Collected: 06/20/18 12:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	85	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 04:53	1
Calcium	160000		5000	310	ug/L		06/26/18 14:00	06/29/18 04:53	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 04:53	1
Iron	2700		100	26	ug/L		06/26/18 14:00	06/29/18 04:53	1
Potassium	3800	J	5000	560	ug/L		06/26/18 14:00	06/29/18 04:53	1
Magnesium	31000		5000	780	ug/L		06/26/18 14:00	06/29/18 04:53	1
Manganese	1800		15	2.1	ug/L		06/26/18 14:00	06/29/18 04:53	1
Sodium	18000		5000	560	ug/L		06/26/18 14:00	06/29/18 04:53	1
Nickel	2.3	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 04:53	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		5.0	1.4	mg/L			07/04/18 16:26	5
Sulfate	180		5.0	1.7	mg/L			07/04/18 16:26	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:21	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P15-062018-1245 FF**

**Lab Sample ID: 240-97605-6**

**Date Collected: 06/20/18 12:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	72	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 05:20	1
Calcium	170000		5000	310	ug/L		06/25/18 14:00	06/30/18 05:20	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 05:20	1
Iron	2300		100	26	ug/L		06/25/18 14:00	06/30/18 05:20	1
Potassium	4900	J	5000	560	ug/L		06/25/18 14:00	06/30/18 05:20	1
Magnesium	36000		5000	780	ug/L		06/25/18 14:00	06/30/18 05:20	1
Manganese	3000		15	2.1	ug/L		06/25/18 14:00	06/30/18 05:20	1
Sodium	16000		5000	560	ug/L		06/25/18 14:00	06/30/18 05:20	1
Nickel	3.4	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 05:20	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P15T-062018-1355**

**Lab Sample ID: 240-97605-7**

**Date Collected: 06/20/18 13:55**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	73	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:24	1
Calcium	200000		5000	310	ug/L		06/26/18 14:00	06/29/18 05:24	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:24	1
Iron	1600		100	26	ug/L		06/26/18 14:00	06/29/18 05:24	1
Potassium	2400	J	5000	560	ug/L		06/26/18 14:00	06/29/18 05:24	1
Magnesium	44000		5000	780	ug/L		06/26/18 14:00	06/29/18 05:24	1
Manganese	1000		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:24	1
Sodium	18000		5000	560	ug/L		06/26/18 14:00	06/29/18 05:24	1
Nickel	7.2	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:24	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5		5.0	1.4	mg/L			07/04/18 09:24	5
Sulfate	260		5.0	1.7	mg/L			07/04/18 09:24	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:26	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P15T-062018-1355 FF**

**Lab Sample ID: 240-97605-8**

**Date Collected: 06/20/18 13:55**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	69	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:01	1
Calcium	190000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:01	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:01	1
Iron	1400		100	26	ug/L		06/25/18 14:00	06/30/18 06:01	1
Potassium	2300	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:01	1
Magnesium	41000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:01	1
Manganese	980		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:01	1
Sodium	18000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:01	1
Nickel	7.4	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:01	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P18T-062018-1505**

**Lab Sample ID: 240-97605-9**

**Date Collected: 06/20/18 15:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	60	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:39	1
Calcium	77000		5000	310	ug/L		06/26/18 14:00	06/29/18 05:39	1
Chromium	2.8	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:39	1
Iron	2200		100	26	ug/L		06/26/18 14:00	06/29/18 05:39	1
Potassium	5400		5000	560	ug/L		06/26/18 14:00	06/29/18 05:39	1
Magnesium	23000		5000	780	ug/L		06/26/18 14:00	06/29/18 05:39	1
Manganese	90		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:39	1
Sodium	130000		5000	560	ug/L		06/26/18 14:00	06/29/18 05:39	1
Nickel	110		40	2.2	ug/L		06/26/18 14:00	06/29/18 05:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41		5.0	1.4	mg/L			07/04/18 09:44	5
Sulfate	150		5.0	1.7	mg/L			07/04/18 09:44	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:28	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P18T-062018-1505 FF**

**Lab Sample ID: 240-97605-10**

**Date Collected: 06/20/18 15:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	59	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:07	1
Calcium	77000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:07	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:07	1
Iron	920		100	26	ug/L		06/25/18 14:00	06/30/18 06:07	1
Potassium	5000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:07	1
Magnesium	23000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:07	1
Manganese	87		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:07	1
Sodium	130000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:07	1
Nickel	110		40	2.2	ug/L		06/25/18 14:00	06/30/18 06:07	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P14-062018-1050**

**Lab Sample ID: 240-97605-11**

**Date Collected: 06/20/18 10:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>57</b>	<b>J</b>	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Calcium</b>	<b>110000</b>		5000	310	ug/L		06/26/18 14:00	06/29/18 05:44	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Iron</b>	<b>2700</b>		100	26	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Potassium</b>	<b>1300</b>	<b>J</b>	5000	560	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Magnesium</b>	<b>24000</b>		5000	780	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Manganese</b>	<b>160</b>		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:44	1
<b>Sodium</b>	<b>8700</b>		5000	560	ug/L		06/26/18 14:00	06/29/18 05:44	1
Nickel	40	U	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>6.1</b>		1.0	0.28	mg/L			07/04/18 10:44	1
<b>Sulfate</b>	<b>52</b>		1.0	0.35	mg/L			07/04/18 10:44	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:30	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P14-062018-1050 FF**

**Lab Sample ID: 240-97605-12**

**Date Collected: 06/20/18 10:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	55	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:12	1
Calcium	110000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:12	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:12	1
Iron	1700		100	26	ug/L		06/25/18 14:00	06/30/18 06:12	1
Potassium	1300	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:12	1
Magnesium	24000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:12	1
Manganese	160		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:12	1
Sodium	8600		5000	560	ug/L		06/25/18 14:00	06/30/18 06:12	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:12	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P3R-062118-0945**

**Lab Sample ID: 240-97605-13**

**Date Collected: 06/21/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>38</b>	<b>J</b>	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Calcium</b>	<b>28000</b>		5000	310	ug/L		06/26/18 14:00	06/29/18 05:50	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Iron</b>	<b>130</b>		100	26	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Potassium</b>	<b>4100</b>	<b>J</b>	5000	560	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Magnesium</b>	<b>20000</b>		5000	780	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Manganese</b>	<b>11</b>	<b>J</b>	15	2.1	ug/L		06/26/18 14:00	06/29/18 05:50	1
<b>Sodium</b>	<b>300000</b>		5000	560	ug/L		06/26/18 14:00	06/29/18 05:50	1
Nickel	40	U	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:50	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>35</b>		5.0	1.4	mg/L			07/04/18 11:04	5
<b>Sulfate</b>	<b>140</b>		5.0	1.7	mg/L			07/04/18 11:04	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:05	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P3R-062118-0945 FF**

**Lab Sample ID: 240-97605-14**

**Date Collected: 06/21/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>37</b>	<b>J</b>	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:17	1
<b>Calcium</b>	<b>27000</b>		5000	310	ug/L		06/25/18 14:00	06/30/18 06:17	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:17	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 06:17	1
<b>Potassium</b>	<b>3900</b>	<b>J</b>	5000	560	ug/L		06/25/18 14:00	06/30/18 06:17	1
<b>Magnesium</b>	<b>19000</b>		5000	780	ug/L		06/25/18 14:00	06/30/18 06:17	1
<b>Manganese</b>	<b>12</b>	<b>J</b>	15	2.1	ug/L		06/25/18 14:00	06/30/18 06:17	1
<b>Sodium</b>	<b>290000</b>		5000	560	ug/L		06/25/18 14:00	06/30/18 06:17	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:17	1



# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P3T-062118-1035**

**Lab Sample ID: 240-97605-15**

**Date Collected: 06/21/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	24	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 05:55	1
Calcium	190000		5000	310	ug/L		06/26/18 14:00	06/29/18 05:55	1
Chromium	1.4	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 05:55	1
Iron	670		100	26	ug/L		06/26/18 14:00	06/29/18 05:55	1
Potassium	1900	J	5000	560	ug/L		06/26/18 14:00	06/29/18 05:55	1
Magnesium	100000		5000	780	ug/L		06/26/18 14:00	06/29/18 05:55	1
Manganese	37		15	2.1	ug/L		06/26/18 14:00	06/29/18 05:55	1
Sodium	180000		5000	560	ug/L		06/26/18 14:00	06/29/18 05:55	1
Nickel	3.7	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 05:55	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4	J	10	2.8	mg/L			07/04/18 11:24	10
Sulfate	850		10	3.5	mg/L			07/04/18 11:24	10
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:10	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P3T-062118-1035 FF**

**Lab Sample ID: 240-97605-16**

**Date Collected: 06/21/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	19	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:22	1
Calcium	180000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:22	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:22	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 06:22	1
Potassium	1700	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:22	1
Magnesium	94000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:22	1
Manganese	15	U	15	2.1	ug/L		06/25/18 14:00	06/30/18 06:22	1
Sodium	180000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:22	1
Nickel	3.4	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:22	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P02-062118-1150**

**Lab Sample ID: 240-97605-17**

**Date Collected: 06/21/18 11:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	64	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:00	1
Calcium	140000		5000	310	ug/L		06/26/18 14:00	06/29/18 06:00	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:00	1
Iron	720		100	26	ug/L		06/26/18 14:00	06/29/18 06:00	1
Potassium	4000	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:00	1
Magnesium	46000		5000	780	ug/L		06/26/18 14:00	06/29/18 06:00	1
Manganese	450		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:00	1
Sodium	110000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:00	1
Nickel	5.7	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 06:00	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		5.0	1.4	mg/L			07/04/18 11:45	5
Sulfate	310		5.0	1.7	mg/L			07/04/18 11:45	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:12	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P02-062118-1150 FF**

**Lab Sample ID: 240-97605-18**

**Date Collected: 06/21/18 11:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	61	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:28	1
Calcium	130000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:28	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:28	1
Iron	680		100	26	ug/L		06/25/18 14:00	06/30/18 06:28	1
Potassium	3900	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:28	1
Magnesium	45000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:28	1
Manganese	400		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:28	1
Sodium	110000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:28	1
Nickel	5.9	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:28	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062118-0001**

**Lab Sample ID: 240-97605-19**

**Date Collected: 06/21/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	64	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:05	1
Calcium	130000		5000	310	ug/L		06/26/18 14:00	06/29/18 06:05	1
Chromium	1.3	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:05	1
Iron	690		100	26	ug/L		06/26/18 14:00	06/29/18 06:05	1
Potassium	4000	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:05	1
Magnesium	45000		5000	780	ug/L		06/26/18 14:00	06/29/18 06:05	1
Manganese	440		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:05	1
Sodium	110000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:05	1
Nickel	7.0	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 06:05	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44		5.0	1.4	mg/L			07/04/18 12:05	5
Sulfate	310		5.0	1.7	mg/L			07/04/18 12:05	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:14	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062118-0001 FF**

**Lab Sample ID: 240-97605-20**

**Date Collected: 06/21/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	63	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:33	1
Calcium	130000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:33	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:33	1
Iron	690		100	26	ug/L		06/25/18 14:00	06/30/18 06:33	1
Potassium	4000	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:33	1
Magnesium	45000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:33	1
Manganese	410		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:33	1
Sodium	120000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:33	1
Nickel	6.0	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:33	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P02T-062118-1240**

**Lab Sample ID: 240-97605-21**

**Date Collected: 06/21/18 12:40**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	21	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:11	1
Calcium	310000		5000	310	ug/L		06/26/18 14:00	06/29/18 06:11	1
Chromium	1.6	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:11	1
Iron	1400		100	26	ug/L		06/26/18 14:00	06/29/18 06:11	1
Potassium	1800	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:11	1
Magnesium	120000		5000	780	ug/L		06/26/18 14:00	06/29/18 06:11	1
Manganese	690		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:11	1
Sodium	44000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:11	1
Nickel	16	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 06:11	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86		10	2.8	mg/L			07/04/18 12:25	10
Sulfate	960		10	3.5	mg/L			07/04/18 12:25	10
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:16	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P02T-062118-1240 FF**

**Lab Sample ID: 240-97605-22**

**Date Collected: 06/21/18 12:40**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	17	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:38	1
Calcium	310000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:38	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:38	1
Iron	610		100	26	ug/L		06/25/18 14:00	06/30/18 06:38	1
Potassium	1400	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:38	1
Magnesium	120000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:38	1
Manganese	750		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:38	1
Sodium	44000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:38	1
Nickel	14	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:38	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P16-062118-1400**

**Lab Sample ID: 240-97605-23**

**Date Collected: 06/21/18 14:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	32	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:16	1
Calcium	240000		5000	310	ug/L		06/26/18 14:00	06/29/18 06:16	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:16	1
Iron	3000		100	26	ug/L		06/26/18 14:00	06/29/18 06:16	1
Potassium	2600	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:16	1
Magnesium	69000		5000	780	ug/L		06/26/18 14:00	06/29/18 06:16	1
Manganese	190		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:16	1
Sodium	74000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:16	1
Nickel	180		40	2.2	ug/L		06/26/18 14:00	06/29/18 06:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45		10	2.8	mg/L			07/04/18 12:45	10
Sulfate	510		10	3.5	mg/L			07/04/18 12:45	10
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:18	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
 Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P16-062118-1400 FF**

**Lab Sample ID: 240-97605-24**

**Date Collected: 06/21/18 14:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	30	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:54	1
Calcium	230000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:54	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:54	1
Iron	2300		100	26	ug/L		06/25/18 14:00	06/30/18 06:54	1
Potassium	2400	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:54	1
Magnesium	67000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:54	1
Manganese	170		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:54	1
Sodium	70000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:54	1
Nickel	150		40	2.2	ug/L		06/25/18 14:00	06/30/18 06:54	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P12-062118-1520**

**Lab Sample ID: 240-97605-25**

**Date Collected: 06/21/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	39	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:21	1
Calcium	88000		5000	310	ug/L		06/26/18 14:00	06/29/18 06:21	1
Chromium	1.5	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:21	1
Iron	840		100	26	ug/L		06/26/18 14:00	06/29/18 06:21	1
Potassium	4200	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:21	1
Magnesium	22000		5000	780	ug/L		06/26/18 14:00	06/29/18 06:21	1
Manganese	95		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:21	1
Sodium	86000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:21	1
Nickel	3.3	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 06:21	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		1.0	0.28	mg/L			07/04/18 13:05	1
Sulfate	82		1.0	0.35	mg/L			07/04/18 13:05	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:19	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P12-062118-1520 FF**

**Lab Sample ID: 240-97605-26**

**Date Collected: 06/21/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	36	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 06:59	1
Calcium	91000		5000	310	ug/L		06/25/18 14:00	06/30/18 06:59	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 06:59	1
Iron	28	J	100	26	ug/L		06/25/18 14:00	06/30/18 06:59	1
Potassium	3800	J	5000	560	ug/L		06/25/18 14:00	06/30/18 06:59	1
Magnesium	22000		5000	780	ug/L		06/25/18 14:00	06/30/18 06:59	1
Manganese	89		15	2.1	ug/L		06/25/18 14:00	06/30/18 06:59	1
Sodium	83000		5000	560	ug/L		06/25/18 14:00	06/30/18 06:59	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/30/18 06:59	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P18-062218-1025**

**Lab Sample ID: 240-97605-27**

**Date Collected: 06/22/18 10:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	6.4	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 06:26	1
Calcium	7300		5000	310	ug/L		06/26/18 14:00	06/29/18 06:26	1
Chromium	1.1	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 06:26	1
Iron	480		100	26	ug/L		06/26/18 14:00	06/29/18 06:26	1
Potassium	3600	J	5000	560	ug/L		06/26/18 14:00	06/29/18 06:26	1
Magnesium	2200	J	5000	780	ug/L		06/26/18 14:00	06/29/18 06:26	1
Manganese	36		15	2.1	ug/L		06/26/18 14:00	06/29/18 06:26	1
Sodium	320000		5000	560	ug/L		06/26/18 14:00	06/29/18 06:26	1
Nickel	210		40	2.2	ug/L		06/26/18 14:00	06/29/18 06:26	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		5.0	1.4	mg/L			07/05/18 00:17	5
Sulfate	170		5.0	1.7	mg/L			07/05/18 00:17	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:21	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P18-062218-1025 FF**

**Lab Sample ID: 240-97605-28**

**Date Collected: 06/22/18 10:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	4.3	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:04	1
Calcium	7000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:04	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:04	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 07:04	1
Potassium	3400	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:04	1
Magnesium	2000	J	5000	780	ug/L		06/25/18 14:00	06/30/18 07:04	1
Manganese	34		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:04	1
Sodium	340000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:04	1
Nickel	210		40	2.2	ug/L		06/25/18 14:00	06/30/18 07:04	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062218-0001**

**Lab Sample ID: 240-97605-29**

**Date Collected: 06/22/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200	U	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:19	1
Calcium	5000	U	5000	310	ug/L		06/26/18 14:00	06/29/18 07:19	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:19	1
Iron	100	U	100	26	ug/L		06/26/18 14:00	06/29/18 07:19	1
Potassium	5000	U	5000	560	ug/L		06/26/18 14:00	06/29/18 07:19	1
Magnesium	5000	U	5000	780	ug/L		06/26/18 14:00	06/29/18 07:19	1
Manganese	15	U	15	2.1	ug/L		06/26/18 14:00	06/29/18 07:19	1
<b>Sodium</b>	<b>580</b>	<b>J</b>	5000	560	ug/L		06/26/18 14:00	06/29/18 07:19	1
Nickel	40	U	40	2.2	ug/L		06/26/18 14:00	06/29/18 07:19	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			07/05/18 00:38	1
Sulfate	1.0	U	1.0	0.35	mg/L			07/05/18 00:38	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:23	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P16T-062218-1115**

**Lab Sample ID: 240-97605-30**

**Date Collected: 06/22/18 11:15**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	19	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:24	1
Calcium	180000		5000	310	ug/L		06/26/18 14:00	06/29/18 07:24	1
Chromium	0.64	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:24	1
Iron	84	J	100	26	ug/L		06/26/18 14:00	06/29/18 07:24	1
Potassium	1200	J	5000	560	ug/L		06/26/18 14:00	06/29/18 07:24	1
Magnesium	49000		5000	780	ug/L		06/26/18 14:00	06/29/18 07:24	1
Manganese	5.2	J	15	2.1	ug/L		06/26/18 14:00	06/29/18 07:24	1
Sodium	67000		5000	560	ug/L		06/26/18 14:00	06/29/18 07:24	1
Nickel	17	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 07:24	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		5.0	1.4	mg/L			07/05/18 00:58	5
Sulfate	410		5.0	1.7	mg/L			07/05/18 00:58	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:25	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P16T-062218-1115 FF**

**Lab Sample ID: 240-97605-31**

**Date Collected: 06/22/18 11:15**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	19	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:09	1
Calcium	180000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:09	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:09	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 07:09	1
Potassium	1200	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:09	1
Magnesium	50000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:09	1
Manganese	15	U	15	2.1	ug/L		06/25/18 14:00	06/30/18 07:09	1
Sodium	69000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:09	1
Nickel	17	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 07:09	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P21-062218-1225**

**Lab Sample ID: 240-97605-32**

**Date Collected: 06/22/18 12:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	55	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:29	1
Calcium	140000		5000	310	ug/L		06/26/18 14:00	06/29/18 07:29	1
Chromium	0.89	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:29	1
Iron	980		100	26	ug/L		06/26/18 14:00	06/29/18 07:29	1
Potassium	3900	J	5000	560	ug/L		06/26/18 14:00	06/29/18 07:29	1
Magnesium	35000		5000	780	ug/L		06/26/18 14:00	06/29/18 07:29	1
Manganese	110		15	2.1	ug/L		06/26/18 14:00	06/29/18 07:29	1
Sodium	160000		5000	560	ug/L		06/26/18 14:00	06/29/18 07:29	1
Nickel	150		40	2.2	ug/L		06/26/18 14:00	06/29/18 07:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81		5.0	1.4	mg/L			07/05/18 01:19	5
Sulfate	200		5.0	1.7	mg/L			07/05/18 01:19	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:26	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P21-062218-1225 FF**

**Lab Sample ID: 240-97605-33**

**Date Collected: 06/22/18 12:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	53	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:15	1
Calcium	130000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:15	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:15	1
Iron	940		100	26	ug/L		06/25/18 14:00	06/30/18 07:15	1
Potassium	3600	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:15	1
Magnesium	33000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:15	1
Manganese	110		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:15	1
Sodium	150000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:15	1
Nickel	140		40	2.2	ug/L		06/25/18 14:00	06/30/18 07:15	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P21T-062218-1310**

**Lab Sample ID: 240-97605-34**

**Date Collected: 06/22/18 13:10**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	35	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:34	1
Calcium	210000		5000	310	ug/L		06/26/18 14:00	06/29/18 07:34	1
Chromium	1.0	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:34	1
Iron	750		100	26	ug/L		06/26/18 14:00	06/29/18 07:34	1
Potassium	2200	J	5000	560	ug/L		06/26/18 14:00	06/29/18 07:34	1
Magnesium	52000		5000	780	ug/L		06/26/18 14:00	06/29/18 07:34	1
Manganese	560		15	2.1	ug/L		06/26/18 14:00	06/29/18 07:34	1
Sodium	160000		5000	560	ug/L		06/26/18 14:00	06/29/18 07:34	1
Nickel	260		40	2.2	ug/L		06/26/18 14:00	06/29/18 07:34	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70		5.0	1.4	mg/L			07/05/18 01:40	5
Sulfate	460		5.0	1.7	mg/L			07/05/18 01:40	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:32	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P21T-062218-1310 FF**

**Lab Sample ID: 240-97605-35**

**Date Collected: 06/22/18 13:10**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	31	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:20	1
Calcium	210000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:20	1
Chromium	1.2	J	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:20	1
Iron	600		100	26	ug/L		06/25/18 14:00	06/30/18 07:20	1
Potassium	2000	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:20	1
Magnesium	52000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:20	1
Manganese	600		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:20	1
Sodium	150000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:20	1
Nickel	280		40	2.2	ug/L		06/25/18 14:00	06/30/18 07:20	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062218-0002**

**Lab Sample ID: 240-97605-36**

**Date Collected: 06/22/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	35	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:40	1
Calcium	210000		5000	310	ug/L		06/26/18 14:00	06/29/18 07:40	1
Chromium	1.5	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:40	1
Iron	820		100	26	ug/L		06/26/18 14:00	06/29/18 07:40	1
Potassium	2300	J	5000	560	ug/L		06/26/18 14:00	06/29/18 07:40	1
Magnesium	52000		5000	780	ug/L		06/26/18 14:00	06/29/18 07:40	1
Manganese	570		15	2.1	ug/L		06/26/18 14:00	06/29/18 07:40	1
Sodium	150000		5000	560	ug/L		06/26/18 14:00	06/29/18 07:40	1
Nickel	270		40	2.2	ug/L		06/26/18 14:00	06/29/18 07:40	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69		5.0	1.4	mg/L			07/05/18 02:00	5
Sulfate	460		5.0	1.7	mg/L			07/05/18 02:00	5
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:33	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062218-0002 FF**

**Lab Sample ID: 240-97605-37**

**Date Collected: 06/22/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	30	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:25	1
Calcium	200000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:25	1
Chromium	0.94	J	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:25	1
Iron	570		100	26	ug/L		06/25/18 14:00	06/30/18 07:25	1
Potassium	2000	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:25	1
Magnesium	50000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:25	1
Manganese	540		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:25	1
Sodium	140000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:25	1
Nickel	260		40	2.2	ug/L		06/25/18 14:00	06/30/18 07:25	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P08T-062218-1405**

**Lab Sample ID: 240-97605-38**

**Date Collected: 06/22/18 14:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	64	J	200	1.3	ug/L		06/26/18 14:00	06/29/18 07:45	1
Calcium	78000		5000	310	ug/L		06/26/18 14:00	06/29/18 07:45	1
Chromium	0.76	J	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 07:45	1
Iron	42	J	100	26	ug/L		06/26/18 14:00	06/29/18 07:45	1
Potassium	6700		5000	560	ug/L		06/26/18 14:00	06/29/18 07:45	1
Magnesium	29000		5000	780	ug/L		06/26/18 14:00	06/29/18 07:45	1
Manganese	120		15	2.1	ug/L		06/26/18 14:00	06/29/18 07:45	1
Sodium	17000		5000	560	ug/L		06/26/18 14:00	06/29/18 07:45	1
Nickel	3.1	J	40	2.2	ug/L		06/26/18 14:00	06/29/18 07:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		1.0	0.28	mg/L			07/05/18 02:21	1
Sulfate	65		1.0	0.35	mg/L			07/05/18 02:21	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:35	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P08T-062218-1405 FF**

**Lab Sample ID: 240-97605-39**

**Date Collected: 06/22/18 14:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	63	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:30	1
Calcium	77000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:30	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:30	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 07:30	1
Potassium	6600		5000	560	ug/L		06/25/18 14:00	06/30/18 07:30	1
Magnesium	29000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:30	1
Manganese	91		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:30	1
Sodium	16000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:30	1
Nickel	3.6	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 07:30	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P08R-062218-1520**

**Lab Sample ID: 240-97605-40**

**Date Collected: 06/22/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

## Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	71	J	200	1.3	ug/L		06/25/18 14:00	06/27/18 12:23	1
Calcium	89000		5000	310	ug/L		06/25/18 14:00	06/27/18 12:23	1
Chromium	1.3	J	5.0	0.63	ug/L		06/25/18 14:00	06/27/18 12:23	1
Iron	180		100	26	ug/L		06/25/18 14:00	06/27/18 12:23	1
Potassium	3900	J	5000	560	ug/L		06/25/18 14:00	06/27/18 12:23	1
Magnesium	26000		5000	780	ug/L		06/25/18 14:00	06/27/18 12:23	1
Manganese	120		15	2.1	ug/L		06/25/18 14:00	06/27/18 12:23	1
Sodium	88000		5000	560	ug/L		06/25/18 14:00	06/27/18 12:23	1
Nickel	6.6	J	40	2.2	ug/L		06/25/18 14:00	06/27/18 12:23	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68		1.0	0.28	mg/L			07/05/18 02:42	1
Sulfate	69		1.0	0.35	mg/L			07/05/18 02:42	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 17:37	1

# Client Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P08R-062218-1520 FF**

**Lab Sample ID: 240-97605-41**

**Date Collected: 06/22/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	76	J	200	1.3	ug/L		06/25/18 14:00	06/30/18 07:36	1
Calcium	88000		5000	310	ug/L		06/25/18 14:00	06/30/18 07:36	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 07:36	1
Iron	150		100	26	ug/L		06/25/18 14:00	06/30/18 07:36	1
Potassium	3900	J	5000	560	ug/L		06/25/18 14:00	06/30/18 07:36	1
Magnesium	25000		5000	780	ug/L		06/25/18 14:00	06/30/18 07:36	1
Manganese	120		15	2.1	ug/L		06/25/18 14:00	06/30/18 07:36	1
Sodium	93000		5000	560	ug/L		06/25/18 14:00	06/30/18 07:36	1
Nickel	7.1	J	40	2.2	ug/L		06/25/18 14:00	06/30/18 07:36	1

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 240-333251/1-A**  
**Matrix: Water**  
**Analysis Batch: 334209**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333251**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200	U	200	1.3	ug/L		06/25/18 14:00	06/30/18 05:10	1
Calcium	5000	U	5000	310	ug/L		06/25/18 14:00	06/30/18 05:10	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/30/18 05:10	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/30/18 05:10	1
Potassium	5000	U	5000	560	ug/L		06/25/18 14:00	06/30/18 05:10	1
Magnesium	5000	U	5000	780	ug/L		06/25/18 14:00	06/30/18 05:10	1
Manganese	15	U	15	2.1	ug/L		06/25/18 14:00	06/30/18 05:10	1
Sodium	5000	U	5000	560	ug/L		06/25/18 14:00	06/30/18 05:10	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/30/18 05:10	1

**Lab Sample ID: LCS 240-333251/2-A**  
**Matrix: Water**  
**Analysis Batch: 334209**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333251**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	2000	1940		ug/L		97	80 - 120
Calcium	50000	46600		ug/L		93	80 - 120
Chromium	200	193		ug/L		97	80 - 120
Iron	1000	906		ug/L		91	80 - 120
Potassium	50000	50300		ug/L		101	80 - 120
Magnesium	50000	45600		ug/L		91	80 - 120
Manganese	500	491		ug/L		98	80 - 120
Sodium	50000	46200		ug/L		92	80 - 120
Nickel	500	487		ug/L		97	80 - 120

**Lab Sample ID: MB 240-333318/1-A**  
**Matrix: Water**  
**Analysis Batch: 333883**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333318**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200	U	200	1.3	ug/L		06/25/18 14:00	06/27/18 12:15	1
Calcium	5000	U	5000	310	ug/L		06/25/18 14:00	06/27/18 12:15	1
Chromium	5.0	U	5.0	0.63	ug/L		06/25/18 14:00	06/27/18 12:15	1
Iron	100	U	100	26	ug/L		06/25/18 14:00	06/27/18 12:15	1
Potassium	5000	U	5000	560	ug/L		06/25/18 14:00	06/27/18 12:15	1
Magnesium	5000	U	5000	780	ug/L		06/25/18 14:00	06/27/18 12:15	1
Manganese	15	U	15	2.1	ug/L		06/25/18 14:00	06/27/18 12:15	1
Sodium	5000	U	5000	560	ug/L		06/25/18 14:00	06/27/18 12:15	1
Nickel	40	U	40	2.2	ug/L		06/25/18 14:00	06/27/18 12:15	1

**Lab Sample ID: LCS 240-333318/2-A**  
**Matrix: Water**  
**Analysis Batch: 333883**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333318**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	2000	1840		ug/L		92	80 - 120
Calcium	50000	47200		ug/L		94	80 - 120
Chromium	200	180		ug/L		90	80 - 120
Iron	1000	977		ug/L		98	80 - 120

TestAmerica Canton

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

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

**Lab Sample ID: LCS 240-333318/2-A**  
**Matrix: Water**  
**Analysis Batch: 333883**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333318**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	50000	47900		ug/L		96	80 - 120
Magnesium	50000	47900		ug/L		96	80 - 120
Manganese	500	472		ug/L		94	80 - 120
Sodium	50000	44500		ug/L		89	80 - 120
Nickel	500	460		ug/L		92	80 - 120

**Lab Sample ID: 240-97605-40 MS**  
**Matrix: Water**  
**Analysis Batch: 333883**

**Client Sample ID: P08R-062218-1520**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333318**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	71	J	2000	1980		ug/L		95	75 - 125
Calcium	89000		50000	138000		ug/L		98	75 - 125
Chromium	1.3	J	200	187		ug/L		93	75 - 125
Iron	180		1000	1180		ug/L		99	75 - 125
Potassium	3900	J	50000	53900		ug/L		100	75 - 125
Magnesium	26000		50000	74100		ug/L		97	75 - 125
Manganese	120		500	601		ug/L		97	75 - 125
Sodium	88000		50000	135000		ug/L		92	75 - 125
Nickel	6.6	J	500	494		ug/L		97	75 - 125

**Lab Sample ID: 240-97605-40 MSD**  
**Matrix: Water**  
**Analysis Batch: 333883**

**Client Sample ID: P08R-062218-1520**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333318**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Barium	71	J	2000	2010		ug/L		97	75 - 125	2	20
Calcium	89000		50000	140000		ug/L		102	75 - 125	1	20
Chromium	1.3	J	200	190		ug/L		94	75 - 125	2	20
Iron	180		1000	1190		ug/L		101	75 - 125	1	20
Potassium	3900	J	50000	54700		ug/L		102	75 - 125	1	20
Magnesium	26000		50000	74900		ug/L		99	75 - 125	1	20
Manganese	120		500	613		ug/L		99	75 - 125	2	20
Sodium	88000		50000	137000		ug/L		97	75 - 125	2	20
Nickel	6.6	J	500	505		ug/L		100	75 - 125	2	20

**Lab Sample ID: MB 240-333516/1-A**  
**Matrix: Water**  
**Analysis Batch: 334146**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333516**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200	U	200	1.3	ug/L		06/26/18 14:00	06/29/18 04:43	1
Calcium	5000	U	5000	310	ug/L		06/26/18 14:00	06/29/18 04:43	1
Chromium	5.0	U	5.0	0.63	ug/L		06/26/18 14:00	06/29/18 04:43	1
Iron	100	U	100	26	ug/L		06/26/18 14:00	06/29/18 04:43	1
Potassium	5000	U	5000	560	ug/L		06/26/18 14:00	06/29/18 04:43	1
Magnesium	5000	U	5000	780	ug/L		06/26/18 14:00	06/29/18 04:43	1
Manganese	15	U	15	2.1	ug/L		06/26/18 14:00	06/29/18 04:43	1
Sodium	5000	U	5000	560	ug/L		06/26/18 14:00	06/29/18 04:43	1

TestAmerica Canton

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

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

**Lab Sample ID: MB 240-333516/1-A**  
**Matrix: Water**  
**Analysis Batch: 334146**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333516**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	40	U	40	2.2	ug/L		06/26/18 14:00	06/29/18 04:43	1

**Lab Sample ID: LCS 240-333516/2-A**  
**Matrix: Water**  
**Analysis Batch: 334146**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333516**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2000	1980		ug/L		99	80 - 120
Calcium	50000	47500		ug/L		95	80 - 120
Chromium	200	197		ug/L		98	80 - 120
Iron	1000	914		ug/L		91	80 - 120
Potassium	50000	51000		ug/L		102	80 - 120
Magnesium	50000	46500		ug/L		93	80 - 120
Manganese	500	512		ug/L		102	80 - 120
Sodium	50000	45800		ug/L		92	80 - 120
Nickel	500	508		ug/L		102	80 - 120

**Lab Sample ID: 240-97605-5 MS**  
**Matrix: Water**  
**Analysis Batch: 334146**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333516**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	85	J	2000	2010		ug/L		96	75 - 125
Calcium	160000		50000	201000		ug/L		77	75 - 125
Chromium	5.0	U	200	190		ug/L		95	75 - 125
Iron	2700		1000	3470		ug/L		76	75 - 125
Potassium	3800	J	50000	53600		ug/L		100	75 - 125
Magnesium	31000		50000	74600		ug/L		88	75 - 125
Manganese	1800		500	2210		ug/L		76	75 - 125
Sodium	18000		50000	62700		ug/L		89	75 - 125
Nickel	2.3	J	500	494		ug/L		98	75 - 125

**Lab Sample ID: 240-97605-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 334146**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total Recoverable**  
**Prep Batch: 333516**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Barium	85	J	2000	2080		ug/L		100	75 - 125	3	20
Calcium	160000		50000	207000		ug/L		88	75 - 125	3	20
Chromium	5.0	U	200	192		ug/L		96	75 - 125	1	20
Iron	2700		1000	3550		ug/L		84	75 - 125	2	20
Potassium	3800	J	50000	55500		ug/L		103	75 - 125	4	20
Magnesium	31000		50000	76800		ug/L		92	75 - 125	3	20
Manganese	1800		500	2220		ug/L		79	75 - 125	1	20
Sodium	18000		50000	64600		ug/L		93	75 - 125	3	20
Nickel	2.3	J	500	501		ug/L		100	75 - 125	1	20

TestAmerica Canton

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

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

**Lab Sample ID: 240-97605-6 MS**

**Matrix: Water**

**Analysis Batch: 334209**

**Client Sample ID: P15-062018-1245 FF**

**Prep Type: Dissolved**

**Prep Batch: 333251**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Barium	72	J	2000	2030		ug/L		98	75 - 125	
Calcium	170000		50000	214000		ug/L		91	75 - 125	
Chromium	5.0	U	200	193		ug/L		96	75 - 125	
Iron	2300		1000	3200		ug/L		88	75 - 125	
Potassium	4900	J	50000	56400		ug/L		103	75 - 125	
Magnesium	36000		50000	81100		ug/L		90	75 - 125	
Manganese	3000		500	3510	4	ug/L		96	75 - 125	
Sodium	16000		50000	63500		ug/L		94	75 - 125	
Nickel	3.4	J	500	497		ug/L		99	75 - 125	

**Lab Sample ID: 240-97605-6 MSD**

**Matrix: Water**

**Analysis Batch: 334209**

**Client Sample ID: P15-062018-1245 FF**

**Prep Type: Dissolved**

**Prep Batch: 333251**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Barium	72	J	2000	2080		ug/L		100	75 - 125	2	20	
Calcium	170000		50000	221000		ug/L		103	75 - 125	3	20	
Chromium	5.0	U	200	197		ug/L		98	75 - 125	2	20	
Iron	2300		1000	3260		ug/L		94	75 - 125	2	20	
Potassium	4900	J	50000	57600		ug/L		105	75 - 125	2	20	
Magnesium	36000		50000	83400		ug/L		95	75 - 125	3	20	
Manganese	3000		500	3580	4	ug/L		111	75 - 125	2	20	
Sodium	16000		50000	65100		ug/L		97	75 - 125	3	20	
Nickel	3.4	J	500	507		ug/L		101	75 - 125	2	20	

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 240-334666/40**

**Matrix: Water**

**Analysis Batch: 334666**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	1.0	U	1.0	0.28	mg/L			07/04/18 07:03	1
Sulfate	1.0	U	1.0	0.35	mg/L			07/04/18 07:03	1

**Lab Sample ID: LCS 240-334666/41**

**Matrix: Water**

**Analysis Batch: 334666**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike	LCS LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Chloride	50.0	51.4		mg/L		103	90 - 110	
Sulfate	50.0	51.4		mg/L		103	90 - 110	

**Lab Sample ID: 240-97605-5 MS**

**Matrix: Water**

**Analysis Batch: 334666**

**Client Sample ID: P15-062018-1245**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Chloride	7.4		250	251		mg/L		97	80 - 120	

TestAmerica Canton

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 240-97605-5 MS**  
**Matrix: Water**  
**Analysis Batch: 334666**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	180		250	411		mg/L		93	80 - 120

**Lab Sample ID: 240-97605-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 334666**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.4		250	243		mg/L		94	80 - 120	3	15
Sulfate	180		250	397		mg/L		88	80 - 120	3	15

**Lab Sample ID: MB 240-334725/3**  
**Matrix: Water**  
**Analysis Batch: 334725**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			07/04/18 15:59	1
Sulfate	1.0	U	1.0	0.35	mg/L			07/04/18 15:59	1

**Lab Sample ID: LCS 240-334725/4**  
**Matrix: Water**  
**Analysis Batch: 334725**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	47.0		mg/L		94	90 - 110
Sulfate	50.0	47.0		mg/L		94	90 - 110

## Method: 4500 CN E-2011 - Cyanide, Total: Colorimetric Method

**Lab Sample ID: MB 240-334385/1-A**  
**Matrix: Water**  
**Analysis Batch: 334418**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 334385**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/02/18 10:46	07/02/18 11:19	1

**Lab Sample ID: LCS 240-334385/2-A**  
**Matrix: Water**  
**Analysis Batch: 334418**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 334385**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.884	0.966		mg/L		109	59 - 129

**Lab Sample ID: MRL 240-334418/10**  
**Matrix: Water**  
**Analysis Batch: 334418**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0107		mg/L		107	70 - 130

TestAmerica Canton

# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Method: 4500 CN E-2011 - Cyanide, Total: Colorimetric Method (Continued)

**Lab Sample ID: MB 240-334594/1-A**  
**Matrix: Water**  
**Analysis Batch: 334656**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 334594**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 11:22	07/03/18 14:13	1

**Lab Sample ID: LCS 240-334594/2-A**  
**Matrix: Water**  
**Analysis Batch: 334656**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 334594**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.884	0.911		mg/L		103	59 - 129

**Lab Sample ID: 240-97605-5 MS**  
**Matrix: Water**  
**Analysis Batch: 334656**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total/NA**  
**Prep Batch: 334594**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.010	U	0.0400	0.0457		mg/L		114	22 - 135

**Lab Sample ID: 240-97605-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 334656**

**Client Sample ID: P15-062018-1245**  
**Prep Type: Total/NA**  
**Prep Batch: 334594**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Total	0.010	U	0.0400	0.0469		mg/L		117	22 - 135	3	40

**Lab Sample ID: MB 240-334664/1-A**  
**Matrix: Water**  
**Analysis Batch: 334669**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 334664**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		07/03/18 16:14	07/03/18 16:47	1

**Lab Sample ID: LCS 240-334664/2-A**  
**Matrix: Water**  
**Analysis Batch: 334669**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 334664**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.884	0.917		mg/L		104	59 - 129

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Metals

### Prep Batch: 333251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-2	P14T-062018-0945 FF	Dissolved	Water	3005A	
240-97605-4	P12TR-062018-1135 FF	Dissolved	Water	3005A	
240-97605-6	P15-062018-1245 FF	Dissolved	Water	3005A	
240-97605-8	P15T-062018-1355 FF	Dissolved	Water	3005A	
240-97605-10	P18T-062018-1505 FF	Dissolved	Water	3005A	
240-97605-12	P14-062018-1050 FF	Dissolved	Water	3005A	
240-97605-14	P3R-062118-0945 FF	Dissolved	Water	3005A	
240-97605-16	P3T-062118-1035 FF	Dissolved	Water	3005A	
240-97605-18	P02-062118-1150 FF	Dissolved	Water	3005A	
240-97605-20	7082-062118-0001 FF	Dissolved	Water	3005A	
240-97605-22	P02T-062118-1240 FF	Dissolved	Water	3005A	
240-97605-24	P16-062118-1400 FF	Dissolved	Water	3005A	
240-97605-26	P12-062118-1520 FF	Dissolved	Water	3005A	
240-97605-28	P18-062218-1025 FF	Dissolved	Water	3005A	
240-97605-31	P16T-062218-1115 FF	Dissolved	Water	3005A	
240-97605-33	P21-062218-1225 FF	Dissolved	Water	3005A	
240-97605-35	P21T-062218-1310 FF	Dissolved	Water	3005A	
240-97605-37	7082-062218-0002 FF	Dissolved	Water	3005A	
240-97605-39	P08T-062218-1405 FF	Dissolved	Water	3005A	
240-97605-41	P08R-062218-1520 FF	Dissolved	Water	3005A	
MB 240-333251/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-333251/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-97605-6 MS	P15-062018-1245 FF	Dissolved	Water	3005A	
240-97605-6 MSD	P15-062018-1245 FF	Dissolved	Water	3005A	

### Prep Batch: 333318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-40	P08R-062218-1520	Total Recoverable	Water	3005A	
MB 240-333318/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-333318/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-97605-40 MS	P08R-062218-1520	Total Recoverable	Water	3005A	
240-97605-40 MSD	P08R-062218-1520	Total Recoverable	Water	3005A	

### Prep Batch: 333516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-1	P14T-062018-0945	Total Recoverable	Water	3005A	
240-97605-3	P12TR-062018-1135	Total Recoverable	Water	3005A	
240-97605-5	P15-062018-1245	Total Recoverable	Water	3005A	
240-97605-7	P15T-062018-1355	Total Recoverable	Water	3005A	
240-97605-9	P18T-062018-1505	Total Recoverable	Water	3005A	
240-97605-11	P14-062018-1050	Total Recoverable	Water	3005A	
240-97605-13	P3R-062118-0945	Total Recoverable	Water	3005A	
240-97605-15	P3T-062118-1035	Total Recoverable	Water	3005A	
240-97605-17	P02-062118-1150	Total Recoverable	Water	3005A	
240-97605-19	7082-062118-0001	Total Recoverable	Water	3005A	
240-97605-21	P02T-062118-1240	Total Recoverable	Water	3005A	
240-97605-23	P16-062118-1400	Total Recoverable	Water	3005A	
240-97605-25	P12-062118-1520	Total Recoverable	Water	3005A	
240-97605-27	P18-062218-1025	Total Recoverable	Water	3005A	
240-97605-29	7082-062218-0001	Total Recoverable	Water	3005A	
240-97605-30	P16T-062218-1115	Total Recoverable	Water	3005A	

TestAmerica Canton

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Metals (Continued)

### Prep Batch: 333516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-32	P21-062218-1225	Total Recoverable	Water	3005A	
240-97605-34	P21T-062218-1310	Total Recoverable	Water	3005A	
240-97605-36	7082-062218-0002	Total Recoverable	Water	3005A	
240-97605-38	P08T-062218-1405	Total Recoverable	Water	3005A	
MB 240-333516/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-333516/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-97605-5 MS	P15-062018-1245	Total Recoverable	Water	3005A	
240-97605-5 MSD	P15-062018-1245	Total Recoverable	Water	3005A	

### Analysis Batch: 333883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-40	P08R-062218-1520	Total Recoverable	Water	6010B	333318
MB 240-333318/1-A	Method Blank	Total Recoverable	Water	6010B	333318
LCS 240-333318/2-A	Lab Control Sample	Total Recoverable	Water	6010B	333318
240-97605-40 MS	P08R-062218-1520	Total Recoverable	Water	6010B	333318
240-97605-40 MSD	P08R-062218-1520	Total Recoverable	Water	6010B	333318

### Analysis Batch: 334146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-1	P14T-062018-0945	Total Recoverable	Water	6010B	333516
240-97605-3	P12TR-062018-1135	Total Recoverable	Water	6010B	333516
240-97605-5	P15-062018-1245	Total Recoverable	Water	6010B	333516
240-97605-7	P15T-062018-1355	Total Recoverable	Water	6010B	333516
240-97605-9	P18T-062018-1505	Total Recoverable	Water	6010B	333516
240-97605-11	P14-062018-1050	Total Recoverable	Water	6010B	333516
240-97605-13	P3R-062118-0945	Total Recoverable	Water	6010B	333516
240-97605-15	P3T-062118-1035	Total Recoverable	Water	6010B	333516
240-97605-17	P02-062118-1150	Total Recoverable	Water	6010B	333516
240-97605-19	7082-062118-0001	Total Recoverable	Water	6010B	333516
240-97605-21	P02T-062118-1240	Total Recoverable	Water	6010B	333516
240-97605-23	P16-062118-1400	Total Recoverable	Water	6010B	333516
240-97605-25	P12-062118-1520	Total Recoverable	Water	6010B	333516
240-97605-27	P18-062218-1025	Total Recoverable	Water	6010B	333516
240-97605-29	7082-062218-0001	Total Recoverable	Water	6010B	333516
240-97605-30	P16T-062218-1115	Total Recoverable	Water	6010B	333516
240-97605-32	P21-062218-1225	Total Recoverable	Water	6010B	333516
240-97605-34	P21T-062218-1310	Total Recoverable	Water	6010B	333516
240-97605-36	7082-062218-0002	Total Recoverable	Water	6010B	333516
240-97605-38	P08T-062218-1405	Total Recoverable	Water	6010B	333516
MB 240-333516/1-A	Method Blank	Total Recoverable	Water	6010B	333516
LCS 240-333516/2-A	Lab Control Sample	Total Recoverable	Water	6010B	333516
240-97605-5 MS	P15-062018-1245	Total Recoverable	Water	6010B	333516
240-97605-5 MSD	P15-062018-1245	Total Recoverable	Water	6010B	333516

### Analysis Batch: 334209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-2	P14T-062018-0945 FF	Dissolved	Water	6010B	333251
240-97605-4	P12TR-062018-1135 FF	Dissolved	Water	6010B	333251
240-97605-6	P15-062018-1245 FF	Dissolved	Water	6010B	333251
240-97605-8	P15T-062018-1355 FF	Dissolved	Water	6010B	333251
240-97605-10	P18T-062018-1505 FF	Dissolved	Water	6010B	333251

TestAmerica Canton

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Metals (Continued)

### Analysis Batch: 334209 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-12	P14-062018-1050 FF	Dissolved	Water	6010B	333251
240-97605-14	P3R-062118-0945 FF	Dissolved	Water	6010B	333251
240-97605-16	P3T-062118-1035 FF	Dissolved	Water	6010B	333251
240-97605-18	P02-062118-1150 FF	Dissolved	Water	6010B	333251
240-97605-20	7082-062118-0001 FF	Dissolved	Water	6010B	333251
240-97605-22	P02T-062118-1240 FF	Dissolved	Water	6010B	333251
240-97605-24	P16-062118-1400 FF	Dissolved	Water	6010B	333251
240-97605-26	P12-062118-1520 FF	Dissolved	Water	6010B	333251
240-97605-28	P18-062218-1025 FF	Dissolved	Water	6010B	333251
240-97605-31	P16T-062218-1115 FF	Dissolved	Water	6010B	333251
240-97605-33	P21-062218-1225 FF	Dissolved	Water	6010B	333251
240-97605-35	P21T-062218-1310 FF	Dissolved	Water	6010B	333251
240-97605-37	7082-062218-0002 FF	Dissolved	Water	6010B	333251
240-97605-39	P08T-062218-1405 FF	Dissolved	Water	6010B	333251
240-97605-41	P08R-062218-1520 FF	Dissolved	Water	6010B	333251
MB 240-333251/1-A	Method Blank	Total Recoverable	Water	6010B	333251
LCS 240-333251/2-A	Lab Control Sample	Total Recoverable	Water	6010B	333251
240-97605-6 MS	P15-062018-1245 FF	Dissolved	Water	6010B	333251
240-97605-6 MSD	P15-062018-1245 FF	Dissolved	Water	6010B	333251

## General Chemistry

### Prep Batch: 334385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-1	P14T-062018-0945	Total/NA	Water	Distill/CN	
MB 240-334385/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 240-334385/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

### Analysis Batch: 334418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-1	P14T-062018-0945	Total/NA	Water	4500 CN E-2011	334385
MB 240-334385/1-A	Method Blank	Total/NA	Water	4500 CN E-2011	334385
LCS 240-334385/2-A	Lab Control Sample	Total/NA	Water	4500 CN E-2011	334385
MRL 240-334418/10	Lab Control Sample	Total/NA	Water	4500 CN E-2011	

### Prep Batch: 334594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-3	P12TR-062018-1135	Total/NA	Water	Distill/CN	
240-97605-5	P15-062018-1245	Total/NA	Water	Distill/CN	
240-97605-7	P15T-062018-1355	Total/NA	Water	Distill/CN	
240-97605-9	P18T-062018-1505	Total/NA	Water	Distill/CN	
240-97605-11	P14-062018-1050	Total/NA	Water	Distill/CN	
MB 240-334594/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 240-334594/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
240-97605-5 MS	P15-062018-1245	Total/NA	Water	Distill/CN	
240-97605-5 MSD	P15-062018-1245	Total/NA	Water	Distill/CN	

### Analysis Batch: 334656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-3	P12TR-062018-1135	Total/NA	Water	4500 CN E-2011	334594

TestAmerica Canton

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## General Chemistry (Continued)

### Analysis Batch: 334656 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-5	P15-062018-1245	Total/NA	Water	4500 CN E-2011	334594
240-97605-7	P15T-062018-1355	Total/NA	Water	4500 CN E-2011	334594
240-97605-9	P18T-062018-1505	Total/NA	Water	4500 CN E-2011	334594
240-97605-11	P14-062018-1050	Total/NA	Water	4500 CN E-2011	334594
MB 240-334594/1-A	Method Blank	Total/NA	Water	4500 CN E-2011	334594
LCS 240-334594/2-A	Lab Control Sample	Total/NA	Water	4500 CN E-2011	334594
240-97605-5 MS	P15-062018-1245	Total/NA	Water	4500 CN E-2011	334594
240-97605-5 MSD	P15-062018-1245	Total/NA	Water	4500 CN E-2011	334594

### Prep Batch: 334664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-13	P3R-062118-0945	Total/NA	Water	Distill/CN	
240-97605-15	P3T-062118-1035	Total/NA	Water	Distill/CN	
240-97605-17	P02-062118-1150	Total/NA	Water	Distill/CN	
240-97605-19	7082-062118-0001	Total/NA	Water	Distill/CN	
240-97605-21	P02T-062118-1240	Total/NA	Water	Distill/CN	
240-97605-23	P16-062118-1400	Total/NA	Water	Distill/CN	
240-97605-25	P12-062118-1520	Total/NA	Water	Distill/CN	
240-97605-27	P18-062218-1025	Total/NA	Water	Distill/CN	
240-97605-29	7082-062218-0001	Total/NA	Water	Distill/CN	
240-97605-30	P16T-062218-1115	Total/NA	Water	Distill/CN	
240-97605-32	P21-062218-1225	Total/NA	Water	Distill/CN	
240-97605-34	P21T-062218-1310	Total/NA	Water	Distill/CN	
240-97605-36	7082-062218-0002	Total/NA	Water	Distill/CN	
240-97605-38	P08T-062218-1405	Total/NA	Water	Distill/CN	
240-97605-40	P08R-062218-1520	Total/NA	Water	Distill/CN	
MB 240-334664/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 240-334664/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

### Analysis Batch: 334666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-1	P14T-062018-0945	Total/NA	Water	300.0	
240-97605-3	P12TR-062018-1135	Total/NA	Water	300.0	
240-97605-5	P15-062018-1245	Total/NA	Water	300.0	
240-97605-7	P15T-062018-1355	Total/NA	Water	300.0	
240-97605-9	P18T-062018-1505	Total/NA	Water	300.0	
240-97605-11	P14-062018-1050	Total/NA	Water	300.0	
240-97605-13	P3R-062118-0945	Total/NA	Water	300.0	
240-97605-15	P3T-062118-1035	Total/NA	Water	300.0	
240-97605-17	P02-062118-1150	Total/NA	Water	300.0	
240-97605-19	7082-062118-0001	Total/NA	Water	300.0	
240-97605-21	P02T-062118-1240	Total/NA	Water	300.0	
240-97605-23	P16-062118-1400	Total/NA	Water	300.0	
240-97605-25	P12-062118-1520	Total/NA	Water	300.0	
MB 240-334666/40	Method Blank	Total/NA	Water	300.0	
LCS 240-334666/41	Lab Control Sample	Total/NA	Water	300.0	
240-97605-5 MS	P15-062018-1245	Total/NA	Water	300.0	
240-97605-5 MSD	P15-062018-1245	Total/NA	Water	300.0	

TestAmerica Canton

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## General Chemistry (Continued)

### Analysis Batch: 334669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-13	P3R-062118-0945	Total/NA	Water	4500 CN E-2011	334664
240-97605-15	P3T-062118-1035	Total/NA	Water	4500 CN E-2011	334664
240-97605-17	P02-062118-1150	Total/NA	Water	4500 CN E-2011	334664
240-97605-19	7082-062118-0001	Total/NA	Water	4500 CN E-2011	334664
240-97605-21	P02T-062118-1240	Total/NA	Water	4500 CN E-2011	334664
240-97605-23	P16-062118-1400	Total/NA	Water	4500 CN E-2011	334664
240-97605-25	P12-062118-1520	Total/NA	Water	4500 CN E-2011	334664
240-97605-27	P18-062218-1025	Total/NA	Water	4500 CN E-2011	334664
240-97605-29	7082-062218-0001	Total/NA	Water	4500 CN E-2011	334664
240-97605-30	P16T-062218-1115	Total/NA	Water	4500 CN E-2011	334664
240-97605-32	P21-062218-1225	Total/NA	Water	4500 CN E-2011	334664
240-97605-34	P21T-062218-1310	Total/NA	Water	4500 CN E-2011	334664
240-97605-36	7082-062218-0002	Total/NA	Water	4500 CN E-2011	334664
240-97605-38	P08T-062218-1405	Total/NA	Water	4500 CN E-2011	334664
240-97605-40	P08R-062218-1520	Total/NA	Water	4500 CN E-2011	334664
MB 240-334664/1-A	Method Blank	Total/NA	Water	4500 CN E-2011	334664
LCS 240-334664/2-A	Lab Control Sample	Total/NA	Water	4500 CN E-2011	334664

### Analysis Batch: 334725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-97605-27	P18-062218-1025	Total/NA	Water	300.0	
240-97605-29	7082-062218-0001	Total/NA	Water	300.0	
240-97605-30	P16T-062218-1115	Total/NA	Water	300.0	
240-97605-32	P21-062218-1225	Total/NA	Water	300.0	
240-97605-34	P21T-062218-1310	Total/NA	Water	300.0	
240-97605-36	7082-062218-0002	Total/NA	Water	300.0	
240-97605-38	P08T-062218-1405	Total/NA	Water	300.0	
240-97605-40	P08R-062218-1520	Total/NA	Water	300.0	
MB 240-334725/3	Method Blank	Total/NA	Water	300.0	
LCS 240-334725/4	Lab Control Sample	Total/NA	Water	300.0	

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P14T-062018-0945**

**Lab Sample ID: 240-97605-1**

**Date Collected: 06/20/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:13	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334666	07/04/18 09:04	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334385	07/02/18 10:46	MMM	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334418	07/02/18 12:08	MMM	TAL CAN

**Client Sample ID: P14T-062018-0945 FF**

**Lab Sample ID: 240-97605-2**

**Date Collected: 06/20/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 05:51	KLC	TAL CAN

**Client Sample ID: P12TR-062018-1135**

**Lab Sample ID: 240-97605-3**

**Date Collected: 06/20/18 11:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:19	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334666	07/04/18 08:44	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334594	07/03/18 11:22	LKG	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334656	07/03/18 14:19	JWW	TAL CAN

**Client Sample ID: P12TR-062018-1135 FF**

**Lab Sample ID: 240-97605-4**

**Date Collected: 06/20/18 11:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 05:56	KLC	TAL CAN

**Client Sample ID: P15-062018-1245**

**Lab Sample ID: 240-97605-5**

**Date Collected: 06/20/18 12:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 04:53	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 16:26	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334594	07/03/18 11:22	LKG	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P15-062018-1245**

**Lab Sample ID: 240-97605-5**

Date Collected: 06/20/18 12:45

Matrix: Water

Date Received: 06/23/18 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 CN E-2011		1	334656	07/03/18 14:21	JWW	TAL CAN

**Client Sample ID: P15-062018-1245 FF**

**Lab Sample ID: 240-97605-6**

Date Collected: 06/20/18 12:45

Matrix: Water

Date Received: 06/23/18 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 05:20	KLC	TAL CAN

**Client Sample ID: P15T-062018-1355**

**Lab Sample ID: 240-97605-7**

Date Collected: 06/20/18 13:55

Matrix: Water

Date Received: 06/23/18 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:24	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 09:24	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334594	07/03/18 11:22	LKG	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334656	07/03/18 14:26	JWW	TAL CAN

**Client Sample ID: P15T-062018-1355 FF**

**Lab Sample ID: 240-97605-8**

Date Collected: 06/20/18 13:55

Matrix: Water

Date Received: 06/23/18 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:01	KLC	TAL CAN

**Client Sample ID: P18T-062018-1505**

**Lab Sample ID: 240-97605-9**

Date Collected: 06/20/18 15:05

Matrix: Water

Date Received: 06/23/18 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:39	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 09:44	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334594	07/03/18 11:22	LKG	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334656	07/03/18 14:28	JWW	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P18T-062018-1505 FF**

**Lab Sample ID: 240-97605-10**

**Date Collected: 06/20/18 15:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:07	KLC	TAL CAN

**Client Sample ID: P14-062018-1050**

**Lab Sample ID: 240-97605-11**

**Date Collected: 06/20/18 10:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:44	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334666	07/04/18 10:44	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334594	07/03/18 11:22	LKG	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334656	07/03/18 14:30	JWW	TAL CAN

**Client Sample ID: P14-062018-1050 FF**

**Lab Sample ID: 240-97605-12**

**Date Collected: 06/20/18 10:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:12	KLC	TAL CAN

**Client Sample ID: P3R-062118-0945**

**Lab Sample ID: 240-97605-13**

**Date Collected: 06/21/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:50	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 11:04	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:05	JWW	TAL CAN

**Client Sample ID: P3R-062118-0945 FF**

**Lab Sample ID: 240-97605-14**

**Date Collected: 06/21/18 09:45**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:17	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P3T-062118-1035**

**Lab Sample ID: 240-97605-15**

**Date Collected: 06/21/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 05:55	KLC	TAL CAN
Total/NA	Analysis	300.0		10	334666	07/04/18 11:24	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:10	JWW	TAL CAN

**Client Sample ID: P3T-062118-1035 FF**

**Lab Sample ID: 240-97605-16**

**Date Collected: 06/21/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:22	KLC	TAL CAN

**Client Sample ID: P02-062118-1150**

**Lab Sample ID: 240-97605-17**

**Date Collected: 06/21/18 11:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:00	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 11:45	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:12	JWW	TAL CAN

**Client Sample ID: P02-062118-1150 FF**

**Lab Sample ID: 240-97605-18**

**Date Collected: 06/21/18 11:50**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:28	KLC	TAL CAN

**Client Sample ID: 7082-062118-0001**

**Lab Sample ID: 240-97605-19**

**Date Collected: 06/21/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:05	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334666	07/04/18 12:05	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:14	JWW	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: 7082-062118-0001 FF**

**Lab Sample ID: 240-97605-20**

**Date Collected: 06/21/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:33	KLC	TAL CAN

**Client Sample ID: P02T-062118-1240**

**Lab Sample ID: 240-97605-21**

**Date Collected: 06/21/18 12:40**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:11	KLC	TAL CAN
Total/NA	Analysis	300.0		10	334666	07/04/18 12:25	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:16	JWW	TAL CAN

**Client Sample ID: P02T-062118-1240 FF**

**Lab Sample ID: 240-97605-22**

**Date Collected: 06/21/18 12:40**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:38	KLC	TAL CAN

**Client Sample ID: P16-062118-1400**

**Lab Sample ID: 240-97605-23**

**Date Collected: 06/21/18 14:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:16	KLC	TAL CAN
Total/NA	Analysis	300.0		10	334666	07/04/18 12:45	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:18	JWW	TAL CAN

**Client Sample ID: P16-062118-1400 FF**

**Lab Sample ID: 240-97605-24**

**Date Collected: 06/21/18 14:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:54	KLC	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P12-062118-1520**

**Lab Sample ID: 240-97605-25**

**Date Collected: 06/21/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:21	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334666	07/04/18 13:05	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:19	JWW	TAL CAN

**Client Sample ID: P12-062118-1520 FF**

**Lab Sample ID: 240-97605-26**

**Date Collected: 06/21/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 06:59	KLC	TAL CAN

**Client Sample ID: P18-062218-1025**

**Lab Sample ID: 240-97605-27**

**Date Collected: 06/22/18 10:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 06:26	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334725	07/05/18 00:17	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:21	JWW	TAL CAN

**Client Sample ID: P18-062218-1025 FF**

**Lab Sample ID: 240-97605-28**

**Date Collected: 06/22/18 10:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:04	KLC	TAL CAN

**Client Sample ID: 7082-062218-0001**

**Lab Sample ID: 240-97605-29**

**Date Collected: 06/22/18 10:35**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:19	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334725	07/05/18 00:38	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:23	JWW	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P16T-062218-1115**

**Lab Sample ID: 240-97605-30**

**Date Collected: 06/22/18 11:15**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:24	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334725	07/05/18 00:58	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:25	JWW	TAL CAN

**Client Sample ID: P16T-062218-1115 FF**

**Lab Sample ID: 240-97605-31**

**Date Collected: 06/22/18 11:15**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:09	KLC	TAL CAN

**Client Sample ID: P21-062218-1225**

**Lab Sample ID: 240-97605-32**

**Date Collected: 06/22/18 12:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:29	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334725	07/05/18 01:19	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:26	JWW	TAL CAN

**Client Sample ID: P21-062218-1225 FF**

**Lab Sample ID: 240-97605-33**

**Date Collected: 06/22/18 12:25**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:15	KLC	TAL CAN

**Client Sample ID: P21T-062218-1310**

**Lab Sample ID: 240-97605-34**

**Date Collected: 06/22/18 13:10**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:34	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334725	07/05/18 01:40	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN

TestAmerica Canton

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P21T-062218-1310**

**Lab Sample ID: 240-97605-34**

**Date Collected: 06/22/18 13:10**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:32	JWW	TAL CAN

**Client Sample ID: P21T-062218-1310 FF**

**Lab Sample ID: 240-97605-35**

**Date Collected: 06/22/18 13:10**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:20	KLC	TAL CAN

**Client Sample ID: 7082-062218-0002**

**Lab Sample ID: 240-97605-36**

**Date Collected: 06/22/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:40	KLC	TAL CAN
Total/NA	Analysis	300.0		5	334725	07/05/18 02:00	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:33	JWW	TAL CAN

**Client Sample ID: 7082-062218-0002 FF**

**Lab Sample ID: 240-97605-37**

**Date Collected: 06/22/18 00:00**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:25	KLC	TAL CAN

**Client Sample ID: P08T-062218-1405**

**Lab Sample ID: 240-97605-38**

**Date Collected: 06/22/18 14:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333516	06/26/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	334146	06/29/18 07:45	KLC	TAL CAN
Total/NA	Analysis	300.0		1	334725	07/05/18 02:21	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:35	JWW	TAL CAN

# Lab Chronicle

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

**Client Sample ID: P08T-062218-1405 FF**

**Lab Sample ID: 240-97605-39**

**Date Collected: 06/22/18 14:05**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:30	KLC	TAL CAN

**Client Sample ID: P08R-062218-1520**

**Lab Sample ID: 240-97605-40**

**Date Collected: 06/22/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			333318	06/25/18 14:00	MBB	TAL CAN
Total Recoverable	Analysis	6010B		1	333883	06/27/18 12:23	AMM2	TAL CAN
Total/NA	Analysis	300.0		1	334725	07/05/18 02:42	LKG	TAL CAN
Total/NA	Prep	Distill/CN			334664	07/03/18 16:14	JWW	TAL CAN
Total/NA	Analysis	4500 CN E-2011		1	334669	07/03/18 17:37	JWW	TAL CAN

**Client Sample ID: P08R-062218-1520 FF**

**Lab Sample ID: 240-97605-41**

**Date Collected: 06/22/18 15:20**

**Matrix: Water**

**Date Received: 06/23/18 09:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			333251	06/25/18 14:00	MBB	TAL CAN
Dissolved	Analysis	6010B		1	334209	06/30/18 07:36	KLC	TAL CAN

**Laboratory References:**

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Racer Elyria

TestAmerica Job ID: 240-97605-1

## Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-19
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-18 *
Kansas	NELAP	7	E-10336	01-31-19
Kentucky (UST)	State Program	4	58	02-23-19
Kentucky (WW)	State Program	4	98016	12-31-18
Minnesota	NELAP	5	039-999-348	12-31-18
Minnesota (Petrofund)	State Program	1	3506	07-31-18 *
Nevada	State Program	9	OH-000482008A	07-31-18 *
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-19
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-19
Pennsylvania	NELAP	3	68-00340	08-31-18 *
Texas	NELAP	6	T104704517-17-9	08-31-18 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18 *
Washington	State Program	10	C971	01-12-19
West Virginia DEP	State Program	3	210	12-31-18

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

**Chain of Custody Record**

3.4 / C3.4  
3.6 / C3.6  
2.8 / C2.8  
1.6 / C1.6

**TestAmerica Canton**  
4101 Shuffel Street NW  
North Canton, OH 44720  
Phone (330) 497-9396 Fax (330) 497-0772

**Client Information**  
Client Contact: **Anthony Corcoran**  
Company: **Ban Aragona**  
Address: **Haley & Aldrich, Inc.**  
6500 Rockside Road Suite 200  
City: **Cleveland**  
State, Zip: **OH, 44131**  
Phone: **216-886-7400** (Tel) **216-739-0560** (Fax)  
Email: **acorcoran@haleyaldrich.com**  
Project Name: **Racer Elyria**  
Site:

**Sampler:** **S. Parlyka**  
Lab PM: **Howell, Leslie**  
Phone: **216-316-7937**  
E-Mail: **leslie.howell@testamericainc.com**

**Carrier Tracking No(s):**  
COC No: **240-52221-22499.3**  
Page: **3 of 3**  
Job #:

**Due Date Requested:**  
TAT Requested (days): **Standard**  
PO #: **41753-002**  
WO #:   
Project #: **24014712**  
SSOW #:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastobol, BT=tissue, A=air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6108 - Select Metals		300.0, 280 - Chloride & Sulfate		4500 CM.E - Cyanide, Total		Analysis Requested	Total Number of Containers	Special Instructions/Note:
					X		D	N	B	X		X		X			
P14T-062018-0945	6-20-18	0945	G	Water	X		X		X		X		X		DISSOLVED METALS	3	
P14T-062018-0945	6-20-18	0945	G	Water	X		X		X		X		X			1	
P12TR-062018-1135	6-20-18	1135	G	Water	X		X		X		X		X			3	
P12TR-062018-1135	6-20-18	1135	G	Water	X		X		X		X		X			1	
P15-062018-1245	6-20-18	1245	G	Water	X		X		X		X		X			9	MS/MSD
P15-062018-1245	6-20-18	1245	G	Water	X		X		X		X		X			1	
P15T-062018-1355	6-20-18	1355	G	Water	X		X		X		X		X			3	
P15T-062018-1355	6-20-18	1355	G	Water	X		X		X		X		X			1	
P18T-062018-1505	6-20-18	1505	G	Water	X		X		X		X		X			3	
P18T-062018-1505	6-20-18	1505	G	Water	X		X		X		X		X			1	
P14-062018-1050	6-20-18	1050	G	Water	X		X		X		X		X			3	

**Barcode:** 240-97605 Chain of Custody

**Preservation Codes:**  
A - HCL  
B - NaOH  
C - Zn Acetate  
D - Nitric Acid  
E - NaHSO4  
F - MeOH  
G - Amchlor  
H - Ascorbic Acid  
I - Ice  
J - DI Water  
K - EDTA  
L - EDA  
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  
Z - other (specify)

**Other:**

**Special Instructions/Note:**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

**Special Instructions/OC Requirements:**  
 Dissolved Metals Filtered w/ 0.45 micron

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: **6-20-18 / 1700** Company: **H2A**  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seal No.:** **None Provided**

**Cooler Temperature(s) °C and Other Remarks:**

**Chain of Custody Record**

<b>Client Information</b>		Lab PM: Howell, Leslie		Carrier Tracking No(s):		COC No: 240-52221-22499.2	
Client Contact: Anthony Donoh		Phone: 216-316-7937		E-Mail: leslie.howell@testamericainc.com		Page: 2 of 3	
Company: Ben Aragona		Due Date Requested:		Job #:		2 of 4	
Address: Haley & Aldrich, Inc.		TAT Requested (days): Standard		Field Filtered Sample (Yes or No)		Analysis Requested	
City: Cleveland		PO #: 41753-002		Perform MS/MSD (Yes or No)		Total Number of Containers	
State/Zip: OH, 44131		WO #:		6010B - Select Metals		Preservation Codes:	
Phone: 216-886-7400(Tel) 216-739-0560(Fax)		Project #: 24014712		300.0_28D - Chloride & Sulfate		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: aragona@haleyaldrich.com		SSOW#:		4500_CN_E - Cyanide, Total		Special Instructions/Note:	
Project Name: Racer Elyria		Sample Date		6010B - CN, E - Cyanide, Total		Special Instructions/Note:	
Site:		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Sample Identification		Sample Time		6010B - Select Metals		Special Instructions/Note:	
P14 - 062018 - 1050		6-20-18		6010B - Select Metals		Special Instructions/Note:	
P15 - 062018 - 1245		6-20-18		6010B - Select Metals		Special Instructions/Note:	
P15 - 062018 - 1245		6-20-18		6010B - Select Metals		Special Instructions/Note:	
P30 - 062118 - 0945		6-21-18		6010B - Select Metals		Special Instructions/Note:	
P30 - 062118 - 0945		6-21-18		6010B - Select Metals		Special Instructions/Note:	
P35 - 062118 - 1035		6-21-18		6010B - Select Metals		Special Instructions/Note:	
P02 - 062118 - 1150		6-21-18		6010B - Select Metals		Special Instructions/Note:	
P02 - 062118 - 1150		6-21-18		6010B - Select Metals		Special Instructions/Note:	
7082 - 062118 - 0001		6-21-18		6010B - Select Metals		Special Instructions/Note:	
7082 - 062118 - 0001		6-21-18		6010B - Select Metals		Special Instructions/Note:	
Possible Hazard Identification		Sample Date		6010B - Select Metals		Special Instructions/Note:	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Radiological		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Empty Kit Relinquished by:		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Relinquished by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Relinquished by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Relinquished by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Custody Seal No.: None Provided		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Date/Time: 6-22-18/1700		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Date/Time: 6-23-18/945		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Date/Time: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Date/Time: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Date/Time: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Cooler Temperature(s) °C and Other Remarks:		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Time		6010B - Select Metals		Special Instructions/Note:	
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Special Instructions/OC Requirements: Dissolved Metals Filtered w/0.45 micron		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Method of Shipment:		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Received by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Received by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Received by: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Company: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Company: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	
Company: [Signature]		Sample Time		6010B - Select Metals		Special Instructions/Note:	

**Chain of Custody Record**

<b>Client Information</b>		Sampler: <u>S. Partzka</u>		Lab PM: <u>Howell, Leslie</u>		Carrier Tracking Note(s):		COC No: <u>240-52482-22652.1</u>	
Client Contact: <u>Ban Aragona</u>		Phone: <u>216-316-7937</u>		E-Mail: <u>leslie.howell@testamerica.com</u>		Page: <u>3 of 4</u>		Job #:	
Company: <u>Haley &amp; Aldrich, Inc.</u>		Address: <u>6500 Rockside Road Suite 200</u>		City: <u>Cleveland</u>		State, Zip: <u>OH, 44131</u>		Preservation Codes:	
Phone: <u>216-886-7400(Tel) 216-739-0560(Fax)</u>		Due Date Requested: <u>TAT Requested (days):</u>		Matrix (W=water, S=solid, O=wastewater, BI=BI-Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Email: <u>banaragona@haleyaldrich.com</u>		FO #: <u>41753-002</u>		Sample Type (C=comp, G=grab)		Sample Time		Sample Date	
Project Name: <u>Racer Elyria</u>		WO #: <u>varagona@haleyaldrich.com</u>		Sample Time		Sample Date		Sample Date	
Site: <u>SSQW#:</u>		Project #: <u>24014712</u>		Sample Time		Sample Date		Sample Date	
Sample Identification		Sample Date		Sample Time		Sample Date		Sample Date	
<u>P02T-062118-1240</u>		<u>6-21-18</u>		<u>1240</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P02T-062118-1240 FF</u>		<u>6-21-18</u>		<u>1240</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P16-062118-1400</u>		<u>6-21-18</u>		<u>1400</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P16-062118-1400 FF</u>		<u>6-21-18</u>		<u>1400</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P12-062118-1500</u>		<u>6-21-18</u>		<u>1520</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P12-062118-1520 FF</u>		<u>6-21-18</u>		<u>1520</u>		<u>6-21-18</u>		<u>6-21-18</u>	
<u>P18-062218-1025</u>		<u>6-22-18</u>		<u>1025</u>		<u>6-22-18</u>		<u>6-22-18</u>	
<u>P18-062218-1025 FF</u>		<u>6-22-18</u>		<u>1025</u>		<u>6-22-18</u>		<u>6-22-18</u>	
<u>7082-062218-0001</u>		<u>6-22-18</u>		<u>1035</u>		<u>6-22-18</u>		<u>6-22-18</u>	
<u>P16T-062218-1115</u>		<u>6-22-18</u>		<u>1115</u>		<u>6-22-18</u>		<u>6-22-18</u>	
<u>P16T-062218-1115 FF</u>		<u>6-22-18</u>		<u>1115</u>		<u>6-22-18</u>		<u>6-22-18</u>	
<b>Possible Hazard Identification</b>		<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		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		<input type="checkbox"/> Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested: I, II, IV, Other (specify)		Empty Kit Relinquished by: <u>LSH</u>		Date: <u>6-22-18/1700</u>		Company: <u>HYA</u>		Special Instructions/OC Requirements: <u>Select Total Metals Samples Filtered w/5 micron Dissolved</u>	
Relinquished by: <u>LSH</u>		Date/Time: <u>6-22-18/1700</u>		Date/Time: <u>6/23/18 945</u>		Company: <u>TAC</u>		Method of Shipment: <u>0.45 micron</u>	
Relinquished by:		Date/Time:		Date/Time:		Company:		Company:	
Relinquished by:		Date/Time:		Date/Time:		Company:		Company:	
Custody Seals Intact: <u>None Provided</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Date/Time:		Date/Time:	



**Chain of Custody Record**

<b>Client Information</b> Client Contact: <b>Anthony Cornell</b> Company: <b>Ben Aragon</b> Address: <b>Hailey &amp; Aldrich, Inc.</b> 6500 Rockside Road Suite 200 City: <b>Cleveland</b> State/Zip: <b>OH, 44131</b> Phone: <b>216-886-7400</b> (Tel) <b>216-739-0560</b> (Fax) Email: <b>ben.aragon@haileyaldrich.com</b> Project Name: <b>Racer Elyria</b> Site:		Lab PM: <b>Howell, Leslie</b> E-Mail: <b>leslie.howell@testamericainc.com</b> Carrier Tracking No(s): COC No: <b>240-52482-22652.1</b> Page: <b>4 of 1</b> Job #: <b>2124</b>						
Due Date Requested: <b>TAT Requested (days):</b> <b>Standard</b> PO #: <b>41753-002</b> WO #: <b>24014712</b> Project #: <b>24014712</b> SSOW#:	<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Total Metals <input checked="" type="checkbox"/> Total Cyanide <input checked="" type="checkbox"/> Chloride & Sulfate <input checked="" type="checkbox"/> Dissolved Metals <input checked="" type="checkbox"/>							
<b>Sample Identification</b> Sample ID: <b>P21-062218-1225</b> <b>P21-062218-1225 FF</b> <b>P21-062218-1310</b> <b>P21-062218-1310 FF</b> <b>7082-062218-0002</b> <b>7082-062218-1405</b> <b>P08T-062218-1405</b> <b>P08T-062218-1405 FF</b> <b>P08C-062218-1520</b> <b>P08C-062218-1520 FF</b>	Sample Date: <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b> <b>6-22-18</b>	Sample Time: <b>1225</b> <b>1225</b> <b>1310</b> <b>1310</b> <b>1405</b> <b>1405</b> <b>1520</b> <b>1520</b>	Matrix: <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b> <b>Water</b>	Sample Type: <b>G</b> <b>G</b> <b>G</b> <b>G</b> <b>G</b> <b>G</b> <b>G</b> <b>G</b> <b>G</b>	Preservation Code: <b>W</b> <b>W</b> <b>W</b> <b>W</b> <b>W</b> <b>W</b> <b>W</b> <b>W</b> <b>W</b>	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Total Metals <input checked="" type="checkbox"/> Total Cyanide <input checked="" type="checkbox"/> Chloride & Sulfate <input checked="" type="checkbox"/> Dissolved Metals <input checked="" type="checkbox"/>	Total Number of Containers: <b>3</b> <b>1</b> <b>3</b> <b>1</b> <b>3</b> <b>1</b> <b>3</b> <b>1</b> <b>3</b>	Special Instructions/Note: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
<b>Possible Hazard Identification</b> <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)								
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: <b>select Total Metals filtered w/ 5 micron. Dissolved w/ 0.45</b>								
Empty Kit Relinquished by: <b>[Signature]</b> Relinquished by: <b>[Signature]</b> Relinquished by:			Date: <b>6-22-18 / 1700</b> <b>6-22-18 945</b> <b>6-23-18</b>			Date/Time: Date/Time: Date/Time:		
Relinquished by: <b>[Signature]</b> Relinquished by:			Date/Time: Date/Time: Date/Time:			Company: <b>H4A</b> Company: Company:		
Custody Seal Intact: <b>None Provided</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Custody Seal No.			Cooler Temperature(s) °C and Other Remarks:		

**TestAmerica Canton Sample Receipt Form/Narrative**  
**Canton Facility**

Login # : 97603

Client Haley & Aldrich Site Name \_\_\_\_\_ Cooler unpacked by: DSD  
 Cooler Received on 6/23/18 Opened on 6/23/18  
 FedEx: 1<sup>st</sup> Grd  Exp  UPS  FAS  Clipper Client Drop Off  TestAmerica Courier  Other

**Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_**

TestAmerica Cooler # TA Foam Box  Client Cooler  Box  Other \_\_\_\_\_  
 Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other \_\_\_\_\_  
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

- Cooler temperature upon receipt  See Multiple Cooler Form  
 IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
 IR GUN #36 (CF -0.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
~~IR GUN # 627 (CF -1.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C~~
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity each Yes No  
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA  
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No  
 -Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples? Yes No  
 If yes, Questions 12-16 have been checked at the originating laboratory.
- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC740840
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_ Yes No
- Was a LL Hg or Me Hg trip blank present? Yes No

**Tests that are not checked for pH by Receiving:**  
 VOAs  
 Oil and Grease  
 TOC

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

**17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES**

Samples processed by: JR  
PISL  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**18. SAMPLE CONDITION**

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**19. SAMPLE PRESERVATION**

Sample(s) P12-1520 were further preserved in the laboratory.  
 Time preserved: 1610 Preservative(s) added/Lot number(s): 3530889 NaOH



Temperature readings:

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
P14T-062018-0945	240-97605-B-1	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P14T-062018-0945	240-97605-C-1	Plastic 1 liter - Nitric Acid	<2	_____	_____
P14T-062018-0945 FF	240-97605-A-2	Plastic 1 liter - Nitric Acid	<2	_____	_____
P12TR-062018-1135 FF	240-97605-B-3	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P12TR-062018-1135 FF	240-97605-C-3	Plastic 1 liter - Nitric Acid	<2	_____	_____
P12TR-062018-1135 FF	240-97605-A-4	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245	240-97605-D-5	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P15-062018-1245	240-97605-E-5	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P15-062018-1245	240-97605-F-5	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P15-062018-1245	240-97605-G-5	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245	240-97605-H-5	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245	240-97605-I-5	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245 FF	240-97605-A-6	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245 FF	240-97605-B-6	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15-062018-1245 FF	240-97605-C-6	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15T-062018-1355	240-97605-B-7	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P15T-062018-1355	240-97605-C-7	Plastic 1 liter - Nitric Acid	<2	_____	_____
P15T-062018-1355 FF	240-97605-A-8	Plastic 1 liter - Nitric Acid	<2	_____	_____
P18T-062018-1505	240-97605-B-9	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P18T-062018-1505	240-97605-C-9	Plastic 1 liter - Nitric Acid	<2	_____	_____
P18T-062018-1505 FF	240-97605-A-10	Plastic 1 liter - Nitric Acid	<2	_____	_____
P14-062018-1050	240-97605-B-11	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P14-062018-1050	240-97605-C-11	Plastic 1 liter - Nitric Acid	<2	_____	_____
P14-062018-1050 FF	240-97605-A-12	Plastic 1 liter - Nitric Acid	<2	_____	_____
P3R-062118-0945	240-97605-B-13	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P3R-062118-0945	240-97605-C-13	Plastic 1 liter - Nitric Acid	<2	_____	_____
P3R-062118-0945 FF	240-97605-A-14	Plastic 1 liter - Nitric Acid	<2	_____	_____
P3T-062118-1035	240-97605-B-15	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P3T-062118-1035	240-97605-C-15	Plastic 1 liter - Nitric Acid	<2	_____	_____
P3T-062118-1035 FF	240-97605-A-16	Plastic 1 liter - Nitric Acid	<2	_____	_____
P02-062118-1150	240-97605-B-17	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P02-062118-1150	240-97605-C-17	Plastic 1 liter - Nitric Acid	<2	_____	_____
P02-062118-1150 FF	240-97605-A-18	Plastic 1 liter - Nitric Acid	<2	_____	_____
7082-062118-0001	240-97605-B-19	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
7082-062118-0001	240-97605-C-19	Plastic 1 liter - Nitric Acid	<2	_____	_____
7082-062118-0001 FF	240-97605-A-20	Plastic 1 liter - Nitric Acid	<2	_____	_____
P02T-062118-1240	240-97605-B-21	Plastic 250ml - with Sodium Hydrox	>12	_____	_____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
P02T-062118-1240	240-97605-C-21	Plastic 500ml - with Nitric Acid	<2	_____	_____
P02T-062118-1240 FF	240-97605-A-22	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
P16-062118-1400	240-97605-B-23	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P16-062118-1400	240-97605-C-23	Plastic 500ml - with Nitric Acid	<2	_____	_____
P16-062118-1400 FF	240-97605-A-24	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
P12-062118-1520	240-97605-B-25	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P12-062118-1520	240-97605-C-25	Plastic 500ml - with Nitric Acid	<2	_____	_____
P12-062118-1520 FF	240-97605-A-26	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
P18-062218-1025	240-97605-B-27	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P18-062218-1025	240-97605-C-27	Plastic 500ml - with Nitric Acid	<2	_____	_____
P18-062218-1025 FF	240-97605-A-28	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
7082-062218-0001	240-97605-B-29	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
7082-062218-0001	240-97605-C-29	Plastic 500ml - with Nitric Acid	<2	_____	_____
P16T-062218-1115	240-97605-B-30	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P16T-062218-1115	240-97605-C-30	Plastic 500ml - with Nitric Acid	<2	_____	_____
P16T-062218-1115 FF	240-97605-A-31	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
P21-062218-1225	240-97605-B-32	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P21-062218-1225	240-97605-C-32	Plastic 1 liter - Nitric Acid	<2	_____	_____
P21-062218-1225 FF	240-97605-A-33	Plastic 1 liter - Nitric Acid	<2	_____	_____
P21T-062218-1310	240-97605-B-34	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P21T-062218-1310	240-97605-C-34	Plastic 1 liter - Nitric Acid	<2	_____	_____
P21T-062218-1310 FF	240-97605-A-35	Plastic 1 liter - Nitric Acid	<2	_____	_____
7082-062218-0002	240-97605-B-36	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
7082-062218-0002	240-97605-C-36	Plastic 1 liter - Nitric Acid	<2	_____	_____
7082-062218-0002 FF	240-97605-A-37	Plastic 1 liter - Nitric Acid	<2	_____	_____
P08T-062218-1405	240-97605-B-38	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P08T-062218-1405	240-97605-C-38	Plastic 1 liter - Nitric Acid	<2	_____	_____
P08T-062218-1405 FF	240-97605-A-39	Plastic 1 liter - Nitric Acid	<2	_____	_____
P08R-062218-1520	240-97605-B-40	Plastic 250ml - with Sodium Hydrox	>12	_____	_____
P08R-062218-1520	240-97605-C-40	Plastic 1 liter - Nitric Acid	<2	_____	_____
P08R-062218-1520 FF	240-97605-A-41	Plastic 1 liter - Nitric Acid	<2	_____	_____

# Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 240-97605-1

**Login Number: 97605**

**List Number: 1**

**Creator: Burns, Terry**

**List Source: TestAmerica Canton**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

## **APPENDIX E**

### **Data Quality Assessment and Validation Report**

## Data Usability Summary Report

**Project Name: RACER Elyria**

**Analytical Laboratory: TestAmerica Laboratories, Inc. – North Canton, OH**

**Validation Performed by: Vanessa Godard**

**Validation Date: September 2018**

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Haley & Aldrich, Inc., prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the RACER Elyria groundwater samples collected from 20 to 22 June 2018. The analytical results for Sample Delivery Group(s) (SDG) listed below were reviewed to determine the data's usability. This data validation and usability assessment was performed per the guidance and requirements established by the U.S. Environmental Protection Agency's (EPA) "National Functional Guidelines for Inorganic Data Review". The following quality assurance/quality control criteria from the analysis of the project samples were reviewed as applicable:

1. Sample Delivery Group Number 240-97605-1
  - Holding Times/Preservation
  - Reporting Limits and Sample Dilution
  - Blank Sample Analysis
  - Laboratory Control Samples
  - Matrix Spike Samples
  - Field and Laboratory Duplicate Samples
  - System Performance and Overall Assessment

Analytical precision and accuracy were evaluated based on the laboratory control, matrix spike, or laboratory duplicate analyses performed concurrently with the project samples or based on field duplicates collected at the site.

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and RL are flagged "J" estimated.

Sample data were qualified in accordance with laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives for the project and usable; any exceptions are noted in the following pages.

# 1. Sample Delivery Group Number 240-97605-1

## 1.1 SUMMARY

This DUSR summarizes the review of SDG number 240-97605-1. Samples were collected, preserved, and shipped following standard chain of custody protocol. Samples were also received appropriately, identified correctly, and analyzed according to the monitoring schedule. Chains of custody were appropriately signed and dated by the field and/or laboratory personnel.

- The lab was contacted on 9/18/2018 to request the unpopulated Login Checklist be completed, but page 87 contains a different version of this checklist, so it was not necessary.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Collection Date	Matrix	Methods
P14T-062018-0945	N	240-97605-1	6/20/2018	Groundwater	A, B, C
P14T-062018-0945 FF	N	240-97605-2	6/20/2018	Groundwater	D
P12TR-062018-1135	N	240-97605-3	6/20/2018	Groundwater	A, B, C
P12TR-062018-1135 FF	N	240-97605-4	6/20/2018	Groundwater	D
P15-062018-1245	N	240-97605-5	6/20/2018	Groundwater	A, B, C
P15-062018-1245 FF	N	240-97605-6	6/20/2018	Groundwater	D
P15T-062018-1355	N	240-97605-7	6/20/2018	Groundwater	A, B, C
P15T-062018-1355 FF	N	240-97605-8	6/20/2018	Groundwater	D
P18T-062018-1505	N	240-97605-9	6/20/2018	Groundwater	A, B, C
P18T-062018-1505 FF	N	240-97605-10	6/20/2018	Groundwater	D
P14-062018-1050	N	240-97605-11	6/20/2018	Groundwater	A, B, C
P14-062018-1050 FF	N	240-97605-12	6/20/2018	Groundwater	D
P3R-062118-0945	N	240-97605-13	6/21/2018	Groundwater	A, B, C
P3R-062118-0945 FF	N	240-97605-14	6/21/2018	Groundwater	D
P3T-062118-1035	N	240-97605-15	6/21/2018	Groundwater	A, B, C
P3T-062118-1035 FF	N	240-97605-16	6/21/2018	Groundwater	D
P02-062118-1150	N	240-97605-17	6/21/2018	Groundwater	A, B, C
P02-062118-1150 FF	N	240-97605-18	6/21/2018	Groundwater	D
7082-062118-0001	FD	240-97605-19	6/21/2018	Groundwater	A, B, C
7082-062118-0001 FF	FD	240-97605-20	6/21/2018	Groundwater	D
P02T-062118-1240	N	240-97605-21	6/21/2018	Groundwater	A, B, C
P02T-062118-1240 FF	N	240-97605-22	6/21/2018	Groundwater	D
P16-062118-1400	N	240-97605-23	6/21/2018	Groundwater	A, B, C
P16-062118-1400 FF	N	240-97605-24	6/21/2018	Groundwater	D
P12-062118-1520	N	240-97605-25	6/21/2018	Groundwater	A, B, C
P12-062118-1520 FF	N	240-97605-26	6/21/2018	Groundwater	D
P18-062218-1025	N	240-97605-27	6/22/2018	Groundwater	A, B, C
P18-062218-1025 FF	N	240-97605-28	6/22/2018	Groundwater	D
7082-062218-0001	EB	240-97605-29	6/22/2018	Groundwater	A, B, C
P16T-062218-1115	N	240-97605-30	6/22/2018	Groundwater	A, B, C
P16T-062218-1115 FF	N	240-97605-31	6/22/2018	Groundwater	D

Sample ID	Sample Type	Lab ID	Sample Collection Date	Matrix	Methods
P21-062218-1225	N	240-97605-32	6/22/2018	Groundwater	A, B, C
P21-062218-1225 FF	N	240-97605-33	6/22/2018	Groundwater	D
P21T-062218-1310	N	240-97605-34	6/22/2018	Groundwater	A, B, C
P21T-062218-1310 FF	N	240-97605-35	6/22/2018	Groundwater	D
7082-062218-0002	FD	240-97605-36	6/22/2018	Groundwater	A, B, C
7082-062218-0002 FF	FD	240-97605-37	6/22/2018	Groundwater	D
P08T-062218-1405	N	240-97605-38	6/22/2018	Groundwater	A, B, C
P08T-062218-1405 FF	N	240-97605-39	6/22/2018	Groundwater	D
P08R-062218-1520	N	240-97605-40	6/22/2018	Groundwater	A, B, C
P08R-062218-1520 FF	N	240-97605-41	6/22/2018	Groundwater	D

*Holding Times:*

- A. Chloride and Sulfate by EPA 300.0----- 28 days
- B. Cyanide by SM4500-CN-E----- 14 days
- C. Total ICP Metals (Ba, Ca, Cr, Fe, Mg, Mn, Ni, K, Na) by EPA 6010B----- 180 days
- D. Dissolved ICP Metals (Ba, Ca, Cr, Fe, Mg, Mn, Ni, K, Na) by EPA 6010B----- 180 days

**1.2 HOLDING TIMES/PRESERVATION**

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol with the following exceptions:

- The cyanide bottle for P12-062118-1520 was further preserved in the laboratory by NaOH.

Cooler temperature on arrival to the laboratory was: 1.6, 2.8, 3.4, 3.6 Degrees C.

**1.3 REPORTING LIMITS AND SAMPLE DILUTION**

All dilutions were reviewed and found to be justified. Only detected analytes were reported from a dilution.

**1.4 BLANK SAMPLE ANALYSIS**

Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Blank samples for field quality control had no detections, indicating that no contamination from field activities occurred with the following exceptions:

Blank Type	Date of Blank	Analyte Detected in Blank	Concentration	Qualifier	Affected Samples
Equipment Blank	6/22/18	Total Sodium	580 µg/L	J+	240-97605-1, -2

## 1.5 LABORATORY CONTROL SAMPLES

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. Compounds associated with the LCS analyses exhibited recoveries within the specified limits.

## 1.6 MATRIX SPIKE SAMPLES

Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effect of the sample matrix on the sample preparation procedures and measurement methodologies. The sample(s) below were used for MS/MSD:

Lab Sample Number	Matrix Spike/ Matrix Spike Duplicate Sample Client ID	Method(s)
240-97605-40	P08R-062218-1520	Total Metals by EPA 6010B
240-97605-5	P15-062018-1245	Total Metals by EPA 6010B; Chloride and Sulfate by EPA 300.0; Cyanide by SM4500-CN-E
240-97605-6	P15-062018-1245 FF	Dissolved Metals by EPA 6010B

The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits.

## 1.7 LABORATORY AND FIELD DUPLICATE SAMPLES

The laboratory duplicate sample analysis is used by the laboratory at the time of a analysis to demonstrate acceptable method precision. The laboratory did not analyze any laboratory duplicates in this SDG.

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The RPD comparison for any field duplicates in this SDG is shown below. RPDs were all below 35% (or the absolute difference rule was satisfied if detects were less than 5x the RL). Any exceptions are noted below and qualified.

### Field Duplicate RPD Calculations:

Method(s): EPA 300.0, 6010B, 4500-CN-E (TOTALS)				
Analyte (µg/L, unless noted)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	P02-062118-1150	7082-062118-0001		
Barium	64 J	64 J	NA	None, Abs. Diff. < RL
Calcium	140,000	130,000	7.4	None, RPD < 35%
Chromium	5.0 U	1.3 J	NA	None, Abs. Diff. < RL
Iron	720	690	4.3	None, RPD < 35%
Magnesium	46,000	45,000	2.2	None, RPD < 35%
Manganese	450	440	2.2	None, RPD < 35%
Nickel	5.7 J	7.0 J	NA	None, Abs. Diff. < RL
Potassium	4,000 J	4,000 J	NA	None, Abs. Diff. < RL
Sodium	110,000	110,000	0.0	None, RPD < 35%
Chloride (mg/L)	43	44	2.3	None, RPD < 35%
Sulfate (mg/L)	310	310	0.0	None, RPD < 35%
Cyanide (mg/L)	0.010 U	0.010 U	NA	None, Both ND

Analyte (µg/L, unless noted)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	P21T-062218-1310	7082-062218-0002		
Barium	35 J	35 J	NA	None, Abs. Diff. < RL
Calcium	210,000	210,000	0.0	None, RPD < 35%
Chromium	1.0 J	1.5 J	NA	None, Abs. Diff. < RL
Iron	750	820	8.9	None, RPD < 35%
Magnesium	52,000	52,000	0.0	None, RPD < 35%
Manganese	560	570	1.8	None, RPD < 35%
Nickel	260	270	3.8	None, RPD < 35%
Potassium	2,200 J	2,300 J	NA	None, Abs. Diff. < RL
Sodium	160,000	150,000	6.5	None, RPD < 35%
Chloride (mg/L)	70	69	1.4	None, RPD < 35%
Sulfate (mg/L)	460	460	0.0	None, RPD < 35%
Cyanide (mg/L)	0.010 U	0.010 U	NA	None, Both ND

NA = not applicable.

ND = non-detect.

Method(s): EPA 6010B (DISSOLVED)				
Analyte (µg/L)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	P02-062118-1150 FF	7082-062118-0001 FF		
Barium	61 J	63 J	NA	None, Abs. Diff. < RL
Calcium	130,000	130,000	0.0	None, RPD < 35%
Chromium	5.0 U	5.0 U	NA	None, Both ND
Iron	680	690	1.5	None, RPD < 35%
Magnesium	45,000	45,000	0.0	None, RPD < 35%
Manganese	400	410	2.5	None, RPD < 35%
Nickel	5.9 J	6.0 J	NA	None, Abs. Diff. < RL
Potassium	3,900 J	4,000 J	NA	None, Abs. Diff. < RL
Sodium	110,000	120,000	8.7	None, RPD < 35%
Analyte (µg/L)	Primary Sample ID	Duplicate Sample ID	% RPD	Qualification
	P21T-062218-1310 FF	7082-062218-0002 FF		
Barium	31 J	30 J	NA	None, Abs. Diff. < RL
Calcium	210,000	200,000	4.9	None, RPD < 35%
Chromium	1.2 J	0.94 J	NA	None, Abs. Diff. < RL
Iron	600	570	5.1	None, RPD < 35%
Magnesium	52,000	50,000	3.9	None, RPD < 35%
Manganese	600	540	10.5	None, RPD < 35%
Nickel	280	260	7.4	None, RPD < 35%
Potassium	2,000 J	2,000 J	NA	None, Abs. Diff. < RL
Sodium	150,000	140,000	6.9	None, RPD < 35%

NA = not applicable.

ND = non-detect.

## 1.8 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by analytical method. Based on the review of this report, the data are 100% useable. A summary of qualifiers applied to this SDG are shown below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
P14T-062018-0945 FF	Dissolved Sodium	5500	5500 J+	Equipment Blank Contamination
P14T-062018-0945	Total Sodium	5600	5600 J+	

## References

1. United States Environmental Protection Agency ,2017a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-540-R-2017-001. January.

## Glossary

Results are qualified with the following codes in accordance with EPA National Functional Guidelines:

- Concentration (C) Qualifiers:
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers:
  - E The compound was quantitated above the calibration range.
  - D The concentration is based on a diluted sample analysis.
- Validation Qualifiers:
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - J+ The result is an estimated quantity, but the result may be biased high.
  - J- The result is an estimated quantity, but the result may be biased low.
  - UJ The compound was not detected above the reported sample quantitation limit; however, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is therefore an estimated concentration only.
  - R The sample results were rejected as unusable; the compound may or may not be present in the sample.
- Sample Types:
  - N Primary Sample
  - FD Field Duplicate Sample
  - FB Field Blank Sample
  - EB Equipment Blank Sample
  - TB Trip Blank Sample

<b>HALEY ALDRICH</b>	<b>REVIEW DOCUMENTATION FORM</b>		
Project	[   ]	File No.	[   ]
Document Title	[   ]	Page	1 of 2
Draft Date	[ / / ]	Review Due Date	[ / / ]

Document Author(s)		Project Manager	
Officer-in-Charge		Reviewer	

<b>REVIEW REQUIREMENT</b>			
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A. REVIEW EXCLUSION?	Reason?		
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*(Note: Any significant deliverable containing judgments, opinions, recommendations, or conclusions **must be reviewed.**)*

B. SCOPE OF REVIEW			
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Document Type:			
<input type="checkbox"/> Letter	<input type="checkbox"/> Memo	<input type="checkbox"/> Report	<input type="checkbox"/> Design
<input type="checkbox"/> Draft	<input type="checkbox"/> Final		

Brief summary of review (e.g., text and tables, but not figures):			

C. EXTERNAL REVIEW			
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Conducted by:		Date:	
(Documentation Attached) Comments:			

REVIEW VERIFICATION			
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**ADMINISTRATIVE ASSISTANT:** *I have checked the above deliverable for conformity to the Haley & Aldrich Document Standards Manual.*

Administrative Asst.:		Review Date :	
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**PROJECT MANAGER:** *I have read the above deliverable and checked it for correctness, consistency, completeness, and clarity as well as compliance with contract requirements and have also confirmed conformity to the Haley & Aldrich Document Standards Manual.*

Project Manager:		Review Date :	
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**REVIEWER:** *I have reviewed the assigned Items/Sections noted for the above deliverable related to my discipline and judge them to be in accordance with the standards of care of the profession. I further state that I am qualified to perform this review.*

Reviewer:		Review Date :	
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**OFFICER IN CHARGE:** *I have discussed the deliverable and review requirements with the Project Manager and reviewer and judge that this review is complete and that the deliverable is in accordance with the scope of work.*

<b>HALEY ALDRICH</b>	<b>REVIEW DOCUMENTATION FORM</b>		
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<b>REVIEWER'S STATEMENT</b>							
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REVIEW ITEM	SATIS-FACTORY		COMMENTS	Author: Comment Addressed		Reviewer: Comment Resolved	
	Yes	No		Yes	No	Yes	No
1. Scope of Services	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
2. Applicable Regulations Addressed	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
3. Data Collection and Validation	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
4. Lab Test Procedures and Outside Lab Certifications	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
5. Graphs, Figures, Tables, Calculations and Drawings	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
6. Computer Codes or Calculations Checked	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
7. Project Criteria, Approach & Assumptions	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
8. Organization, Clarity and Completeness	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
9. Deliverables are Consistent and are Complete	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
10. Opinions, Conclusions and Recommendations	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]
11. Identification of Risks and Limitations	[ ]	[ ]		[ ]	[ ]	[ ]	[ ]

<b>SIGNIFICANT CHANGES:</b>	