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26 March 2014
File No. 34858-007

Mr. David Szymanski
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Hydro-Air Components, Inc. Property (Formerly Steelfields Area IV)
Brownfield Cleanup Program (BCP) Site #C915204
Fifth Annual Long-Term Groundwater Monitoring Report

Dear Mr. Szymanski:

Haley & Aldrich of New York (Haley & Aldrich) is pleased to present this fifth annual Long-Term Groundwater Monitoring Report (Report) on behalf of Hydro-Air Components, Inc. (Hydro-Air). This Report was prepared by Haley & Aldrich in accordance with the NYSDEC-approved Site Management Plan (SMP) dated November 2007 for the subject property located at 100 Rittling Blvd. in Buffalo, New York (Property), shown on Figure 1. The Property is also referred to as the "Former Steelfields Area IV" BCP Site #C915204.

This Report presents the results of post-remediation groundwater monitoring activities completed on 1 and 2 July 2013. This Report also includes the results of the ORC® (oxygen release compound) monitoring, and our findings based on the apparent trends in the monitoring data collected to date.

**SAMPLE COLLECTION & ANALYSIS**

Test America Buffalo (Test America) collected groundwater samples from the five monitoring wells and the three in-situ remediation wells identified on Table 1 using low-flow purge and sampling methods as specified with the SMP. Samples were collected on 1 and 2 July 2013. Test America also analyzed the groundwater samples for the parameters listed in Table 2. Laboratory analytical results are summarized in the section below.

Static depth to groundwater was measured at each monitoring well prior to groundwater sample collection. Static groundwater levels are summarized in Table 3.

Water quality parameters were measured and recorded in the field during the low-flow purge using a flow-through cell and water quality meter. Field measurements are summarized on Table 4. Field data forms are included as part of the laboratory reports in Appendix A.

## LABORATORY ANALYTICAL RESULTS

The laboratory analytical results overall, are consistent with the results of previous monitoring events. The laboratory analytes detected are posted on Figure 1 and summarized on Table 5, along with the applicable NYSDEC groundwater quality standard or guidance value (GWQS / GVs). Guidance values are presented where standards have not been established for a specific analyte (see Table 5). Although the GWQS/GVs are based upon protection of drinking water, the groundwater on the property and in the area is not a source of drinking water.

Laboratory analytical reports are included in Appendix A.

## GROUNDWATER ELEVATION DATA

A groundwater elevation posting map, included as Figure 2, was prepared using the static groundwater elevations at monitoring wells and ORC wells on 1 July 2013. Groundwater elevations indicate that flow is generally to the southeast across the site. Groundwater levels appear to have been influenced by backfilling in portions of the site resulting in mounding in the vicinity of A4-ORC-2, as shown on Figure 2.

## ORC® MONITORING

The ORC® socks were most recently replaced in September 2013 and scheduled to be replaced in March 2014. The three ORC® wells were monitored on 2 July 2013 in accordance with the SMP. Monitoring results are presented in Table 6. The July monitoring results again indicate low pH conditions in the ORC wells. Fluctuation of pH is evident in all three wells. While the initial trend of pH in the wells for a number of years had been upward (toward neutral), the data from 2011 through 2013 fluctuate rather than follow that trend.

## FINDINGS

The SMP indicates that any parameters exceeding groundwater quality standards for two consecutive events should be considered to be of interest. Benzene, ethylbenzene, naphthalene, toluene, lead, chromium, cyanide, and arsenic have been parameters of interest as specified by the data evaluation criteria in the SMP. Currently, only benzene, cyanide, and arsenic meet these criteria. Laboratory analytical results to date indicate generally stable conditions with respect to concentration ranges for the parameters of interest.

The following trends are also evident in the data set and will be monitored during upcoming sampling events:

- Benzene continues to remain generally stable at all locations with the exception of well A4-MW-9. For example, while the benzene in well A4-MW-8R dropped from 32,000 ug/L in 2012 to 27,000 ug/L in 2013, the benzene concentration in well A4-MW-9 dropped from 11,000 ug/L in July 2012 to 72 ug/L in July 2013. Prior to 2013 the historical range for benzene in well A4-MW-9 was 9,400 ug/L to 18,000 ug/L.

- Naphthalene has only been detected above the GWQS/GVs at one well, A4-MW-5R. Concentrations exceeded the GWQS/GVs at that location from 2008 through 2011. It was not detected in any location in 2012 but was detected at 14 ug/L in July 2013.

- The cyanide concentration in A4-MW-9, which is located outside of the tar/blue soil excavation limits proximate to the northern property boundary, continues to fluctuate, dropping from 4,300 ug/L cyanide in 2012 to 190 ug/L in 2013. This drop in cyanide at this location may correlate with an increase in pH at this location (5.15 in 2012 to 6.31 in 2013) and a decrease in benzene (as described above). These parameters will be assessed again in 2014 to ascertain if this is a trend or fluctuation at this location. Cyanide concentrations also fluctuated in the other four monitoring wells from a range of 49 to 680 ug/L in July 2012 to a range of 91 to 260 ug/L in July 2013.

- Arsenic continues to fluctuate at most locations from a range of 13 to 40 ug/L in July 2012 to a range of ND<10 to 34 in July 2013.

- Chromium, which had been a concern mainly at A4-MW-9, has not been detected at concentrations exceeding the GWQS/GVs for three consecutive sampling events.

- Lead was detected above the GWQS/GVs at two locations in 2012. In 2013 lead was not detected at concentrations exceeding the GWQS/GVs.

- Lower pH conditions persist in the ORC® wells within the footprint of the remedial excavation and in all five monitoring well locations. Although the focus of the cleanup was the removal of impacted soil containing contaminants of concern above the site-specific cleanup level, the low pH conditions are likely inhibiting the ORC® from enhancing biodegradation of residual contaminants.

Groundwater monitoring activities will continue in the future following the annual schedule in accordance with SMP. The next groundwater sampling event is tentatively scheduled for June 2014.

Please contact us if you have any questions or require additional information.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

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Senior Geologist

Glenn M. White
Senior Scientist

Cc: Maurice Moore, NYSDEC
Andrew Lennartz, Hydro Air Components, Inc.
Thomas Walsh, Esq., Hiscock & Barclay, LLP.

Attachments:

Table 1 Groundwater Monitoring Network and Sample Frequency
Table 2 Analytical Parameters
Table 3 Groundwater Elevation Measurements
Table 4 Summary of Field Measurements July 2013
Table 5 Summary of Groundwater Analytical Results July 2013
Table 6 Summary of ORC Assessment Results July 2013

Figure 1 Groundwater Analytical Results Summary
Figure 2 Shallow Groundwater Isopotential Map

Appendix A Laboratory Reports

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Table 1
Groundwater Monitoring Network and Sample Frequency

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Well Designation | Monitoring Event | | | | |
|---|---|---|---|---|---|
| | Year 1 | | Year 2 | | Year 3+ |
| | 1 SA | 2 SA | 1 SA | 2 SA | Annually |
| **AREA IV - Monitoring Wells** | | | | | |
| A4-MW-5R | x | x | x | | x |
| A4-MW-7R | x | x | x | | x |
| A4-MW-8R | x | x | x | | x |
| A4-MW-9 | x | x | x | | x |
| A4-MW-10 | x | x | x | | x |
| **AREA IV - In-Situ Remediation Wells** | | | | | |
| A4-ORC-1 | x | x | x | | x |
| A4-ORC-2 | x | x | x | | x |
| A4-ORC-3 | x | x | x | | x |

Notes:
The wells identified above were installed during July 2007.
Well A4-MW-10 was replaced in May 2008.
This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 2
Analytical Parameters

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| **Monitoring Wells (A4-MW-5R, A4-MW-7R, A4-MW-8R, A4-MW-9 and A4-MW-10)** |
|---|
| VOCs (Method 8260) |
| Arsenic (Method 6010) |
| Chromium (Method 6010) |
| Lead (Method 6010) |
| Cyanide (Method 9012B) |
| Field Parameters[1] |
| **ORC In-Situ Remediation Wells[2] (A4-ORC-1, A4-ORC-2, A4-ORC-3)** |
| pH |
| Oxidation-Reduction Potential (ORP) |
| Temperature |
| Alkalinity / CO2 |
| Dissolved Oxygen |
| Water Level |

Notes:
1. Field parameters include: pH, temperature, ORP, specific conductance, turbidity, dissolved oxygen, alkalinity, CO2, and visual and olfactory observations
2. Oxygen release compound (ORC) wells.
3. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 3
July 2013
Groundwater Elevation Measurements

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Monitoring Location | TOR Elevation[1] (fmsl) | Total Depth[2] (fbTOR) | DTW (fbTOR) | | | | | | | | Groundwater Elevation (fmsl) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AREA IV - Monitoring Wells[3]** | | | **June/July 2007** | **Jan/Feb 2008** | **June 2008** | **June 2009** | **June 2010** | **June 2011** | **July 2012** | **July 2013** | **June/July 2007** | **Jan/Feb 2008** | **June 2008** | **June 2009** | **June 2010** | **June 2011** | **July 2012** | **July 2013** |
| A4-MW-5R | 584.23 | 11.14 | 4.89 | 4.47 | 4.69 | 4.64 | 4.4 | 4.38 | 5.11 | 4.5 | 579.34 | 579.76 | 579.54 | 579.59 | 579.83 | 579.85 | 579.12 | 579.73 |
| A4-MW-7R | 584.95 | 13.3 | 4.36 | 3.52 | 3.85 | 3.72 | 3.28 | 3.18 | 4.52 | 3.62 | 580.59 | 581.43 | 581.1 | 581.23 | 581.67 | 581.77 | 580.43 | 581.33 |
| A4-MW-8R | 586.53 | 15.1 | 5.51 | 5.42 | 5.3 | 5.16 | 4.6 | 4.49 | 8.2 | 3.74 | 581.02 | 581.11 | 581.23 | 581.37 | 581.93 | 582.04 | 578.33 | 582.79 |
| A4-MW-9 | 587.1 | 13.4 | 7.73 | 5.8 | 6.11 | 6.56 | 4.58 | 4.39 | 4.39 | 4.45 | 579.37 | 581.3 | 580.99 | 580.54 | 582.52 | 582.71 | 582.71 | 582.65 |
| A4-MW-10 | 586.55 | 15.25 | 7.15 | NM | 6.7 | 6.96 | 6.29 | 5.69 | 8.41 | 6.08 | 579.4 | NA | 579.85 | 579.59 | 580.26 | 580.86 | 578.14 | 580.47 |
| **AREA IV - In-Situ Remediation Wells[4]** | | | | | | | | | | | | | | | | | | |
| A4-ORC-1 | 584.75 | 14.3 | 9.27 | 4.53 | 3.97 | 4.39 | 2.6 | 2.65 | 4.66 | 2.91 | 575.48 | 580.22 | 580.78 | 580.36 | 582.15 | 582.1 | 580.09 | 581.84 |
| A4-ORC-2 | 585.11 | 11.55 | 6.00 | 6.27 | 3.87 | 2.82 | 1.92 | 0.96 | 2.08 | 1.23 | 579.11 | 578.84 | 581.24 | 582.29 | 583.19 | 584.15 | 583.03 | 583.88 |
| A4-ORC-3 | 585.06 | 10.46 | 6.68 | 5.25 | 4.66 | 5.16 | 3.57 | 3.55 | 5.82 | 3.55 | 578.38 | 579.81 | 580.4 | 579.9 | 581.49 | 581.51 | 579.24 | 581.51 |

Notes:
1. Elevations at most wells were surveyed on June 5, 2007 and at A4-MW-5R on August 1, 2007 by Niagara Boundary.
2. Total depths measured on June 25, 2007 by TurnKey Environmental Restoration, LLC personnel.
3. DTW measurements were obtained on January 31, 2008, February 1, 2008, February 4, 2008, June 2, 2008 and June 3, 2008 by Haley & Aldrich of New York, based on surveyed well elevations.
4. June/July 2007 DTW measurements were obtained by Benchmark Environmental Engineering & Science and EnSol Environmental Solutions, Ltd. based on surveyed well elevations.
5. DTW measurements were obtained on June 25, 2009, June 28, 2010, June 28, 2011, July 5, 2012, and July 1, 2013 by Test America Buffalo, based on surveyed well elevations.
6. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Definitions:
DTW = depth to water
fmsl = feet above mean sea level
fbTOR = feet below top of riser
TOR = top of riser
NA = not applicable
ORC = oxygen releasing compound
R = replacement well

Table 4
Summary of Field Measurements
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A4-MW-5R | | | | | | | | | A4-MW-7R | | | | | | | | |
| | 6/25/2007 | | 2/1/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 | 6/25/2007 | | 1/31/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 |
| **Field Measurements** | | | | | | | | | | | | | | | | | | |
| pH (units) | 6.55 | 6.61 | 6.80 | 6.71 | 6.82 | 7.36 | 7.20 | 6.77 | 6.14 | 6.17 | 6.33 | 6.93 | 5.97 | 6.31 | 6.02 | 5.85 | 5.23 | 4.76 |
| Temperature (ºC) | 15.9 | 17.4 | 6.3 | 12.3 | 16.87 | 18.1 | 15.5 | 19.07 | 15.5 | 18.0 | 18.1 | 6.5 | 11.4 | 18.34 | 15.8 | 16.6 | 19.4 | 16.02 |
| Specific Conductance (uS) | 2265 | 2287 | 2740 | 3090 | 1920 | 2390 | 2590 | 2570 | 8240 | 3276 | 3150 | 3280 | 4290 | 3740 | 4950 | 4640 | 4990 | 4946 |
| Turbidity (NTU) | 36 | 22.5 | 13.5 | 9.4 | 5.86 | 6.42 | 3.18 | 1.36 | 3.9 | 61 | 21.6 | 31.2 | 29.8 | 19.3 | 15.04 | 9.51 | 6.17 | 13.9 |
| Dissolved Oxygen (mg/L) | -- | -- | 0.41 | 0.37 | 0.30 | 0.37 | 0.65 | 0.92 | 0.53 | -- | -- | 0.59 | 0.35 | 0.15 | 0.11 | 0.22 | 0.45 | 0.34 |
| Oxidation Reduction Potential (mV) | +70 | +74 | -73 | -142 | -48 | -39 | -183 | -22 | -7 | -73 | -98 | -146 | -91 | -40 | +7 | -82 | 4 | 12 |
| Appearance (visual) | clear | | -- | orange tint | lt.brown tint | tan tint | slight yellow tint | -- | -- | cloudy | | -- | orange tint | yellow tint | yellow tint | slight sheen in bucket | sheen | -- |
| Odor (olfactory) | none | | -- | none | slight | slight | slight | -- | -- | sulfur | | -- | none | slight | slight | slight | -- | -- |
| CO2 (mg/L) | -- | | 170 | 490 | 155 | 25 | 700 | 50 | 42 | -- | | 260 | 0 | 425 | 445 | 375 | 375 | 389 |
| Alkalinity (mg/L) | -- | | 765 | 660 | 629 | 780 | 680 | 884 | 289 | -- | | 340 | 280 | 323 | 420 | 400 | 289 | 289 |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America
4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
5. na indicates no Class GA GWQS or GV has been established for this compound.
6. NS indicates not sampled.
7. -- indicates not analyzed.
8. Shaded results indicate results outside the range of the GWQS/GV.
9. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 4
Summary of Field Measurements
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A4-MW-8R | | | | | | | | | A4-MW-9 | | | | | | | |
| | 6/25/2007 | | 1/31/2008 | 6/2/2008 | 6/26/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 | 6/25/2007 | | 1/31/2008 | 6/2/2008 | 6/26/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 |
| **Field Measurements** | | | | | | | | | | | | | | | | | | |
| pH (units) | 6.38 | 6.47 | 6.31 | 6.02 | 6.5 | 6.51 | 6.38 | 5.87 | 5.69 | 3.99 | 3.96 | 4.23 | 3.9 | 5.91 | 4.53 | 5.85 | 5.15 | 6.31 |
| Temperature (ºC) | 17.3 | 18.4 | 7 | 12.5 | 16.3 | 18.8 | 17 | 19.5 | 15.68 | 18.5 | 18.3 | 6.4 | 11.4 | 15.7 | 17.6 | 18.1 | 21.2 | 15.63 |
| Specific Conductance (uS) | 4102 | 4001 | 4630 | 4840 | 4670 | 4730 | 4650 | 4510 | 3490 | 11150 | 11200 | 8280 | 11900 | 9490 | 8700 | 3440 | 4820 | 14400 |
| Turbidity (NTU) | 79 | 43.6 | 84.6 | 27.5 | 8.54 | 3.88 | 1.5 | 4.2 | 1.9 | 383 | 69.3 | 36.7 | 10.9 | 10.05 | 4.92 | 4.96 | 18.9 | 5.23 |
| Dissolved Oxygen (mg/L) | -- | -- | 0.67 | 0.32 | 0.26 | 0.14 | 0.37 | 0.34 | 0.21 | -- | -- | 0.95 | 7.93 | 0.2 | 0.1 | 0.24 | 0.29 | 0.12 |
| Oxidation Reduction Potential (mV) | -50 | -65 | -78 | -68 | +56 | -22 | -67 | -35 | -6 | +207 | +206 | +127 | +157 | +137 | +83 | -42 | -23 | -20 |
| Appearance (visual) | cloudy | | -- | clear | clear | clear | clear | -- | -- | turbid | | -- | clear | yellow tint | yellow tint | clear | -- | -- |
| Odor (olfactory) | sulfur | | -- | none | none | none | none | -- | -- | sulfur | | -- | none | none | slight | slight | -- | -- |
| CO2 (mg/L) | -- | | 0 | 0 | 550 | 75 | 160 | 195 | 175 | -- | | 0 | 0 | 300 | 315 | 513 | 581 | 289 |
| Alkalinity (mg/L) | -- | | 748 | 600 | 816 | 840 | 920 | 799 | 765 | -- | | 68 | 60 | 34 | 31 | 40 | 68 | 542 |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America Buffalo.
4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
5. na indicates no Class GA GWQS or GV has been established for this compound.
6. NS indicates not sampled.
7. -- indicates not analyzed.
8. Shaded results indicate results outside the range of the GWQS/GV.
9. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 4
Summary of Field Measurements
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | | | Class GA GWQS/GV |
|---|---|---|---|---|---|---|---|---|---|---|
| | A4-MW-10 | | | | | | | | | |
| | 6/25/2007 | | 1/31/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 | |
| **Field Measurements** | | | | | | | | | | |
| pH (units) | 6.73 | 6.88 | NS | 6.40 | 6.65 | 7.13 | 6.88 | 6.41 | 6.04 | 6.5-8.5 |
| Temperature (ºC) | 16.7 | 18.4 | NS | 11.1 | 17 | 18 | 16.1 | 19.5 | 14.81 | na |
| Specific Conductance (uS) | 3009 | 2931 | NS | 3140 | 2400 | 2110 | 2340 | 2440 | 2820 | na |
| Turbidity (NTU) | 16.9 | 22.8 | NS | 43 | 10.8 | 7.5 | 5.26 | 6.54 | 6.5 | na |
| Dissolved Oxygen (mg/L) | -- | -- | NS | 0.46 | 0.15 | 0.1 | 0.33 | 0.39 | 0.46 | na |
| Oxidation Reduction Potential (mV) | -81 | -91 | NS | -24 | -5 | -38 | -98 | -56 | 7 | na |
| Appearance (visual) | clear | | NS | clear | clear | clear | clear | -- | -- | na |
| Odor (olfactory) | slight sulfur | | NS | none | none | none | none | -- | -- | na |
| CO2 (mg/L) | -- | | NS | 422 | 505 | 45 | 65 | 55 | 55 | na |
| Alkalinity (mg/L) | -- | | NS | 560 | 969 | 1100 | 1160 | 1105 | 2773 | na |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America Buffalo.
4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
5. na indicates no Class GA GWQS or GV has been established for this compound.
6. NS indicates not sampled.
7. -- indicates not analyzed.
8. Shaded results indicate results outside the range of the GWQS/GV.
9. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science,

Table 5
Summary of Groundwater Analytical Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter (ug/L) | Class GA GWQS/GV | Monitoring Location | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A4-MW-5R | | | | | | | | A4-MW-7R | | | | | | | |
| | | 6/25/2007 | 2/1/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 | 6/25/2007 | 1/31/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 5 | NM | NM | 18 | 3.8 J | 3.8 J | 18 | ND <10 | ND<1.0 | NM | NM | ND < 1.0 | ND < 5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| Acetone | 50* | 6.7 J | ND < 50 | NM | NM | NM | NM | NM | NM | 11 J | ND < 50 | NM | NM | NM | NM | NM | NM |
| Benzene | 0.7 | ND | 7.1 | 8.3 | 5.4 | 8.2 | 13 | ND <10 | 0.6 J | 16 | ND < 1.0 | 7.9 | 3.6 | 6.4 | 2.3 J | 3.6 J | ND <5.0 |
| Carbon disulfide | 60* | ND | ND < 1.0 | NM | NM | NM | NM | NM | NM | 24 | 3.1 | NM | NM | NM | NM | NM | NM |
| Ethylbenzene | 5 | ND | 3.1 | 4.4 | 3.5 | ND < 5.0 | 9.1 | ND <10 | ND<1.0 | ND | ND < 1.0 | ND < 1.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| 2-Butanone (MEK) | 50* | ND | ND < 10 | NM | NM | NM | NM | NM | NM | 2.8 J | ND < 10 | NM | NM | NM | NM | NM | NM |
| Napthalene | 10 | NM | NM | 940 | 28 | 29 | 420 | ND <10 | 14 | NM | NM | ND<5.0 | ND<5.0 | ND<5.0 | 3.3 J | ND <5.0 | ND <5.0 |
| Toluene | 5 | ND | ND < 5.0 | 1.6 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <10 | ND<1.0 | ND | ND < 5.0 | ND < 1.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| Xylenes, Total | 5 | ND | 32 | 25.5 | ND<10 | NM | NM | ND <20 | 1.7 J | 1.4 J | ND < 3.0 | ND < 1.0 | ND<10 | NM | NM | ND <10 | ND <10 |
| **Metals** | | | | | | | | | | | | | | | | | |
| Arsenic | 25 | ND | ND < 20 | 21 | 19.1 | 11.5 | 7.9 J | 14 | 17 | 9.1 | ND < 20 | 29 | ND<50 | ND < 10 | ND < 10 | 12 | 11 |
| Chromium | 50 | ND | ND < 10 | ND<10 | 1.8 J | 2.1 J | 1.7 J | 4.1 | 1.6 J | 11 | ND < 10 | 21 | ND<20 | ND < 4.0 | ND < 4.0 | 11 | ND < 20 |
| Lead | 25 | ND | ND < 5.0 | ND<5.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND < 5.0 | 7.6 | 6.2 | 17 | ND<5.0 | 4.4 | ND < 5.0 | 27 | 23 |
| **Wet Chemistry** | | | | | | | | | | | | | | | | | |
| Cyanide | 200 | 165 | 400 | 490 | 103 | 482 | 560 | 680 | 260 | 42.9 | 100 | 41 | 39.4 | 64 | 240 | 49 | 91 |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America Buffalo.
4. Only those analytes detected above the Class GA GW QS/GV are presented in this table.
5. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
6. Shaded results indicate exceedance of the GWQS/GV.
7. ND indicates not detected above laboratory detection limits.
8. NS indicates not sampled.
9. NM indicates not measured.
10. Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels.
11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 5
Summary of Groundwater Analytical Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter (ug/L) | Class GA GWQS/GV | Monitoring Location | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A4-MW-8R | | | | | | | | A4-MW-9 | | | | | | | |
| | | 6/25/2007 | 1/31/2008 | 6/2/2008 | 6/26/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 | 6/25/2007 | 1/31/2008 | 6/2/2008 | 6/26/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 5 | NM | NM | ND < 25 | ND < 5.0 | ND < 400 | ND < 100 | ND < 500 | ND < 500 | NM | NM | ND < 100 | ND<10 | ND < 200 | ND < 5 | ND <200 | ND < 1.0 |
| Acetone | 50* | ND | ND < 50 | NM | NM | NM | NM | NM | NM | 660 J | ND < 50 | NM | NM | NM | NM | NM | NM |
| Benzene | 0.7 | 26000 D | 20000 D | 19000 | 25000 | 32000 | 33000 | 32000 | 27000 | 18000 D | 9400 | 13000 | 18000 | 18000 | 13000 | 11000 | 72 |
| Carbon disulfide | 60* | ND | ND < 1.0 | NM | NM | NM | NM | NM | NM | 77 J | 4.2 | NM | NM | NM | NM | NM | NM |
| Ethylbenzene | 5 | 38 J | ND < 1.0 | 25 | 33 | ND < 400 | ND < 100 | ND <500 | ND <500 | ND | ND < 1.0 | ND < 100 | ND<10 | ND < 200 | ND < 5 | ND <200 | ND < 1.0 |
| 2-Butanone (MEK) | 50* | ND | ND < 10 | NM | NM | NM | NM | NM | NM | ND | ND < 10 | NM | NM | NM | NM | NM | NM |
| Napthalene | 10 | NM | NM | ND<120 | ND<5.0 | ND < 400 | ND < 100 | ND <500 | ND <500 | NM | NM | ND<500 | ND<10 | ND < 200 | ND < 5 | ND <200 | ND < 1.0 |
| Toluene | 5 | 60 J | ND < 5.0 | ND < 25 | 3.8 | ND < 400 | ND < 100 | ND <500 | ND <500 | 230 J | 11 | 160 | 270 | 280 | 150 | ND <200 | ND < 1.0 |
| Xylenes, Total | 5 | ND | ND < 3.0 | ND < 25 | 5.8 | NM | NM | ND <1000 | ND <1000 | ND | ND < 3.0 | ND < 100 | ND<20 | NM | NM | ND <400 | ND < 2.0 |
| **Metals** | | | | | | | | | | | | | | | | | |
| Arsenic | 25 | 24 | 33 | 54 | 39.9 | 36 | 37 | 40 | 34 | 34 | ND < 20 | ND < 400 | ND<50 | ND < 50 | 20 | 26 | ND < 10 |
| Chromium | 50 | 3.8 | ND < 10 | ND < 10 | ND < 4.0 | ND < 4.0 | ND < 4 | 1.7 J | ND < 4 | 170 | 21 | 390 | 84.3 | 68.4 | 30 | 22 | 1.7 J |
| Lead | 25 | ND | 26 | 8.5 | ND < 40 | ND < 5.0 | ND < 5 | 3.5 J | ND < 5 | 28 | 590 | 160 | 12.0 J | 16.3 | 13 | 53 | ND < 5 |
| **Wet Chemistry** | | | | | | | | | | | | | | | | | |
| Cyanide | 200 | 106 | 86 | 94 | 137 | 91.2 | 140 | 140 | 130 | 4600 | 2700 | 4200 | 1770 | 3610 | 7000 | 4300 | 190 |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America Buffalo.
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5. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as published in NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (June 1998).
6. Shaded results indicate exceedance of the GWQS/GV.
7. ND indicates not detected above laboratory detection limits.
8. NS indicates not sampled.
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11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 5
Summary of Groundwater Analytical Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter (ug/L) | Class GA GWQS/GV | Monitoring Location | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | A4-MW-10 | | | | | | | |
| | | 6/25/2007 | 1/31/2008 | 6/2/2008 | 6/25/2009 | 6/28/2010 | 6/28/2011 | 7/5/2012 | 7/1/2013 |
| **Volatile Organic Compounds** | | | | | | | | | |
| 1,2,4-Trimethylbenzene | 5 | NM | NM | ND<1.0 | ND<5.0 | ND < 5.0 | 3.8 J | ND <200 | ND < 1.0 |
| Acetone | 50* | 5.8 J | NS | NM | NM | NM | NM | NM | NM |
| Benzene | 0.7 | ND | NS | ND < 1.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| Carbon disulfide | 60* | ND | NS | NM | NM | NM | NM | NM | NM |
| Ethylbenzene | 5 | ND | NS | ND < 1.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| 2-Butanone (MEK) | 50* | ND | NS | NM | NM | NM | NM | NM | NM |
| Napthalene | 10 | NM | NM | 7.3 | ND<5.0 | ND<5.0 | ND<5.0 | ND <5.0 | ND <5.0 |
| Toluene | 5 | ND | NS | ND < 1.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| Xylenes, Total | 5 | ND | NS | ND < 1.0 | ND<10 | NM | NM | ND <10 | ND <10 |
| **Metals** | | | | | | | | | |
| Arsenic | 25 | 6.1 | NS | 26 | 13.1 | 8.3 J | 7.4 J | 13 | 8.8 J |
| Chromium | 50 | ND | NS | ND < 10 | ND<4.0 | ND < 4.0 | ND < 4.0 | 2.1 J | 2.4 J |
| Lead | 25 | ND | NS | ND < 5.0 | ND<5.0 | ND < 5.0 | ND < 5.0 | ND <5.0 | ND <5.0 |
| **Wet Chemistry** | | | | | | | | | |
| Cyanide | 200 | 108 | NS | 73 | 35.7 | 51.0 | 110 | 110 | 96 |

Notes:
1. Benchmark Environmental Engineering & Science conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5 July 2012, and the 1-2 July 2013 sampling events. Samples were collected and analyzed by Test America Buffalo.
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7. ND indicates not detected above laboratory detection limits.
8. NS indicates not sampled.
9. NM indicates not measured.
10. Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels.
11. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 6
Summary of ORC Assessment Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A4-ORC-1 | | | | | | | |
| | 7/12/2007 | 2/4/2008 | 6/3/2008 | 6/26/2009 | 6/29/2010 | 6/29/2011 | 7/6/2012 | 7/2/2013 |
| **Field Measurements** | | | | | | | | |
| DTW (fbTOR) | 9.27 | 4.53 | 3.97 | 4.22 | 2.62 | 2.65 | 4.66 | 2.91 |
| pH (units) | 2.34 | 3.78 | 3.49 | 5.00 | 4.07 | 3.50 | 2.90 | 3.01 |
| Temperature (ºC) | 22.9 | 3.3 | 13.6 | 17.0 | 18.0 | 17.8 | 19.9 | 18.6 |
| Specific Conductance (mS) | 3.11 | 36.6 | 34.5 | 28.0 | 28.3 | 27.3 | 26.8 | 27.4 |
| Turbidity (NTU) | 190 | 23.1 | 176 | 6.17 | 9 | 8.19 | 2.46 | 3.2 |
| Dissolved Oxygen (mg/L) | 8.15 | 10.49 | 7.26 | 1.55 | 0.44 | 0.54 | 0.49 | 0.67 |
| Eh (mV) | 235 | 155 | 209 | 330 | 344 | 58 | 190 | 267 |
| Appearance (visual) | brown | -- | yellow-brown | amber | dark amber | amber | amber | amber |

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012 sampling, and the 1-2 July 2013 events. Samples were collected and analyzed in the field by Test America Buffalo.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 6
Summary of ORC Assessment Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A4-ORC-2 | | | | | | | |
| | 7/12/2007 | 2/4/2008 | 6/3/2008 | 6/26/2009 | 6/29/2010 | 6/29/2011 | 7/6/2012 | 7/2/2013 |
| **Field Measurements** | | | | | | | | |
| DTW (fbTOR) | 6 | 6.27 | 3.87 | 2.75 | 2.01 | 0.96 | 2.08 | 1.23 |
| pH (units) | 1.96 | 1.73 | 1.72 | 4.31 | 2.64 | 2.30 | 1.40 | 1.81 |
| Temperature (ºC) | 19.1 | 6.4 | 14.2 | 16.1 | 17.5 | 16.0 | 20.1 | 17.8 |
| Specific Conductance (mS) | 3.88 | 41.7 | 46.5 | 34.5 | 40 | 17.8 | 27.5 | 27.3 |
| Turbidity (NTU) | 130 | 99.8 | 62.3 | 50.8 | 5.01 | 29.1 | 11.63 | 18.6 |
| Dissolved Oxygen (mg/L) | 9.05 | 0.33 | 7.78 | 1.00 | 0.46 | 0.34 | 0.53 | 0.32 |
| Eh (mV) | 383 | 358 | 387 | 466 | 443 | 352 | 388 | 461 |
| Appearance (visual) | brown | -- | dark brown | tan/amber | amber | amber | dark amber | amber |

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012 sampling events, and the 1-2 July 2013. Samples were collected and analyzed in the field by Test America Buffalo.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

Table 6
Summary of ORC Assessment Results
July 2013

Fifth Annual Groundwater Monitoring Event
Hydro-Air Site (Formerly Steelfields Area IV)
Buffalo, New York

| Parameter | Monitoring Location | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A4-ORC-3 | | | | | | | |
| | 7/12/2007 | 2/4/2008 | 6/3/2008 | 6/25/2009 | 6/29/2010 | 6/29/2011 | 7/6/2012 | 7/2/2013 |
| **Field Measurements** | | | | | | | | |
| DTW (fbTOR) | 6.68 | 5.25 | 4.66 | 5.16 | 3.6 | 3.55 | 5.82 | 3.55 |
| pH (units) | 2.71 | 3.25 | 3.45 | 5.39 | 5.55 | 5.75 | 3.89 | 4.96 |
| Temperature (ºC) | 17.9 | 7.2 | 11.7 | 19.72 | 15.6 | 15.3 | 18.5 | 20.5 |
| Specific Conductance (mS) | 3.44 | 39.7 | 38.2 | 32.9 | 28 | 28.8 | 26.9 | 19.7 |
| Turbidity (NTU) | 780 | > 800 | 92.7 | 152 | 248 | 87.5 | 68.9 | 39 |
| Dissolved Oxygen (mg/L) | 9.99 | 5.53 | 1.05 | 0.47 | 1.63 | 1.95 | 1.38 | 0.35 |
| Eh (mV) | 140 | 263 | 235 | 134 | 174 | 174 | 296 | 302 |
| Appearance (visual) | brown | -- | yellow-brown | orange | orange | orange | orange | amber |

Notes:
1. EnSol Environmental Solutions, Ltd. conducted the 25 June 2007 sampling event.
2. Haley & Aldrich completed the February and June 2008 groundwater monitoring events.
3. Haley & Aldrich conducted the 25-26 June 2009, 28-29 June 2010, 28-29 June 2011, 5-6 July 2012 sampling events, and the 1-2 July 2013. Samples were collected and analyzed in the field by Test America Buffalo.
4. This table has been adapted from the Draft First Semi-Annual Long-Term Groundwater Monitoring Report (June 2007) by Benchmark Environmental Engineering & Science, PLLC.

A3-MW-9

RITTLING STREET

A4-MW-5R

| A4-MW-5R | Jun/July 2007 | Jan/Feb 2008 | Jun 2008 | Jun 2009 | Jun 2010 | Jun 2011 | Jul 2012 | Jul 2013 |
|---|---|---|---|---|---|---|---|---|
| Acetone | 6.7 J ug/L | ND | NM | NM | NM | NM | NM | NM |
| Benzene | ND | **7.1 ug/L** | **8.3 ug/L** | **5.4 ug/L** | **8.2 ug/L** | **13 ug/L** | ND | 0.6 J ug/L |
| Ethylbenzene | ND | 3.1 ug/L | 4.4 ug/L | 3.5 ug/L | NM | **9.1 ug/L** | ND | ND |
| Napthalene | NM | NM | **940 ug/L** | **28 ug/L** | **29 ug/L** | **420 ug/L** | ND | **14 ug/L** |
| Toulene | ND | ND | 1.6 ug/L | ND | ND | ND | ND | ND |
| Xylenes, Total | ND | **32 ug/L** | **25.5 ug/L** | ND | NM | NM | ND | 1.7 J ug/L |
| Arsenic | ND | ND | 21 ug/L | 19.1 ug/L | 11.5 ug/L | 7.9 J ug/L | 14 ug/L | 17 ug/L |
| Chromium | ND | ND | ND | 1.8 J ug/L | 2.1 J ug/L | 1.7 J ug/L | 4.1 | 1.6 J ug/L |
| Cyanide | 165 ug/L | **400 ug/L** | **490 ug/L** | 103 ug/L | **482 ug/L** | **560 ug/L** | **680 ug/L** | **260 ug/L** |

A3-MW-3

PLANT AREA

PARKING AREA

TIFFT STREET

STEELFIELDS
AREA III

A3-ORC-1

A3-ORC-2

A3-ORC-3

A4-MW-9

FUTURE EXPANSION

A3-ORC-4

A3-ORC-5

A4-MW-10

| A4-MW-9 | Jun/July 2007 | Jan/Feb 2008 | Jun 2008 | Jun 2009 | Jun 2010 | Jun 2011 | Jul 2012 | Jul 2013 |
|---|---|---|---|---|---|---|---|---|
| Acetone | **660 J ug/L** | ND | NM | NM | NM | NM | NM | NM |
| Benzene | **18000 D ug/L** | **9400 ug/L** | **13000 ug/L** | **18000 ug/L** | **18000 ug/L** | **13000 ug/L** | **11000 ug/L** | **72 ug/L** |
| Carbon disulfide | **77 ug/L** | 4.2 ug/L | NM | NM | NM | NM | NM | NM |
| Toluene | **230 ug/L** | **11 ug/L** | **160 ug/L** | **270 ug/L** | **280 ug/L** | **150 ug/L** | ND | ND |
| Arsenic | **0.034 mg/L** | ND | ND | ND | ND | 20 ug/L | **26 ug/L** | ND |
| Chromium | **0.170 mg/L** | 21 ug/L | **390 ug/L** | **84.3 ug/L** | **68.4 ug/L** | 30 ug/L | 22 ug/L | 1.7 J ug/L |
| Lead | **0.028 mg/L** | **590 ug/L** | **160 ug/L** | 12.0 J ug/L | 16.3 ug/L | 13 ug/L | **53 ug/L** | ND |
| Cyanide | **4600 ug/L** | **2700 ug/L** | **4200 ug/L** | **1770 ug/L** | **3610 ug/L** | **7000 ug/L** | **4300 ug/L** | 190 ug/L |

| A4-MW-10 | Jun/July 2007 | Jan/Feb 2008 | Jun 2008 | Jun 2009 | Jun 2010 | Jun 2011 | Jul 2012 | Jul 2013 |
|---|---|---|---|---|---|---|---|---|
| Acetone | 5.8 J ug/L | NS | NM | NM | NM | NM | NM | NM |
| Arsenic | 0.0061 mg/L | NS | **26 ug/L** | 13.1 ug/L | 8.3 J ug/L | 7.4 J ug/L | 13 ug/L | 8.8 J ug/L |
| Cyanide | 108 ug/L | NS | 73 ug/L | 35.7 ug/L | 51.0 ug/L | 110 ug/L | 110 ug/L | 96 ug/L |

A3-MW-6

A3-ORC-6

A3-ORC-7

A3-ORC-8

A3-ORC-9

A4-ORC-1

A4-ORC-2

A4-ORC-3

HYDRO-AIR
(FORMERLY STEELFIELDS
AREA IV)

| A4-MW-7R | Jun/July 2007 | Jan/Feb 2008 | Jun 2008 | Jun 2009 | Jun 2010 | Jun 2011 | Jul 2012 | Jul 2013 |
|---|---|---|---|---|---|---|---|---|
| Acetone | 11 J ug/L | ND | NM | NM | NM | NM | NM | NM |
| Benzene | **16 ug/L** | ND | **7.9 ug/L** | **3.6 ug/L** | **6.4 ug/L** | **2.3 J ug/L** | **3.6 J ug/L** | ND |
| 2-Butanone (MEK) | 2.8 J ug/L | ND | NM | NM | NM | NM | NM | NM |
| Carbon disulfide | 24 ug/L | 3.1 ug/L | NM | NM | NM | NM | NM | NM |
| Xylenes, Total | 1.4 J ug/L | ND | ND | ND | NM | NM | ND | ND |
| Arsenic | 0.0091 mg/L | ND | **29 ug/L** | ND | ND | ND | 12 ug/L | 11 |
| Chromium | 0.011 mg/L | ND | 21 ug/L | ND | ND | ND | 11 ug/L | ND |
| Lead | 0.0076 mg/L | 6.2 ug/L | 17 ug/L | ND | 4.4 ug/L | ND | **27 ug/L** | 23 ug/L |
| Cyanide | 42.9 ug/L | 100 ug/L | 41 ug/L | 39.4 ug/L | 64 ug/L | **240 ug/L** | 49 ug/L | 91 ug/L |

A4-MW-1

A4-MW-1A

A4-MW-7R

A3-ORC-10

A3-ORC-11

A4-MW-8R

| A4-MW-8R | Jun/July 2007 | Jan/Feb 2008 | Jun 2008 | Jun 2009 | Jun 2010 | Jun 2011 | Jul 2012 | Jul 2013 |
|---|---|---|---|---|---|---|---|---|
| Benzene | **26000 D** | **20000 ug/L** | **19000 ug/L** | **25000 ug/L** | **32000 ug/L** | **33000 ug/L** | **32000 ug/L** | **27000 ug/L** |
| Ethylbenzene | **38 J ug/L** | ND | **25 ug/L** | **33 ug/L** | ND | ND | ND | ND |
| Toluene | **60 J ug/L** | ND | ND | 3.8 ug/L | ND | ND | ND | ND |
| Xylenes, Total | ND | ND | ND | **5.8 ug/L** | NM | NM | ND | ND |
| Arsenic | 0.024 mg/L | **33 ug/L** | **54 ug/L** | **39.9 ug/L** | **36 ug/L** | **37 ug/L** | **40 ug/L** | **34 ug/L** |
| Chromium | 0.0038 mg/L | ND | ND | ND | ND | ND | 1.7 J ug/L | ND |
| Lead | ND | **26 ug/L** | 8.5 ug/L | ND | ND | ND | 3.5 J ug/L | ND |
| Cyanide | 106 ug/L | 86 ug/L | 94 ug/L | 137 ug/L | 91.2 ug/L | 140 ug/L | 140 ug/L | 130 ug/L |

A3-MW-7

A4-MW-8R

N E S W

0 200 400
SCALE IN FEET

## LEGEND:

- FENCE
- PROPERTY LINES
- APPROX. TAR & BLUE SOIL/FILL EXCAVATION LIMITS
- A4-MW-10 — MONITORING WELL
- A4-ORC-1 — ORC SOCK WELL

| A4-MW-9 | |
|---|---|
| Benzene | **9400 ug/L** |
| Carbon disulfide | 4.2 ug/L |
| Toluene | **11 ug/L** |
| Chromium | 21 ug/L |
| Lead | **590 ug/L** |
| Cyanide | **2700 ug/L** |

GROUNDWATER ANALYTICAL RESULTS
*(only those compounds detected above method detection limits are shown, **BOLD** indicates the concentration exceeds NYSDEC Class GA GWQS/GV)*

NOTE:
BASEMAP IS MODIFIED FROM A DRAWING ENTITLED "SITE PLAN" PROVIDED BY BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. DATED JULY 2007.

HALEY & ALDRICH

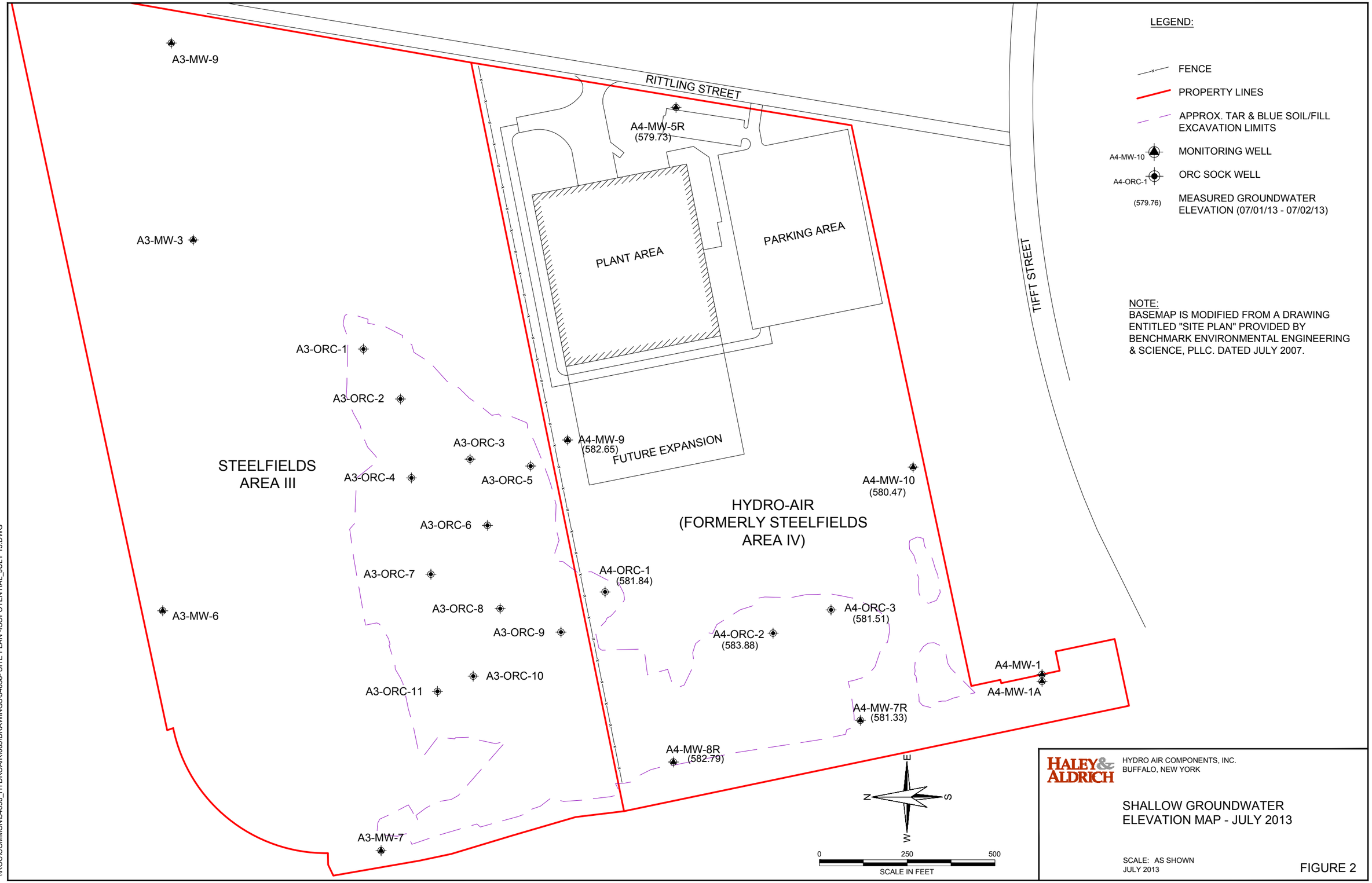
HYDRO AIR COMPONENTS, INC.
BUFFALO, NEW YORK

# GROUNDWATER ANALYTICAL RESULTS SUMMARY

SCALE: AS SHOWN
JULY 2013

FIGURE 1

G:\34858_HYDROAIR\005\DRAWINGS\34858- SITE PLAN -DATABOX_JULY 13.DWG




\\ROC\COMMON\34858_HYDROAIR\005\DRAWINGS\34858- SITE PLAN -ISOPOTENTIAL_JULY 13.DWG

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-41193-1
Client Project/Site: Hydro-Air Componenets

For:
Hydro-Air Components, Inc.
100 Rittling Boulevard
Buffalo, New York 14220

Attn: Andrew Lennartz

*Authorized for release by:*
*7/11/2013 10:18:45 AM*
Rebecca Jones, Project Mgmt. Assistant
rebecca.jones@testamericainc.com

Designee for

Melissa Deyo, Project Manager I
melissa.deyo@testamericainc.com

# Table of Contents

# Definitions/Glossary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Qualifiers

### GC/MS VOA

| 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. |

### Metals

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

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| 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 |
| 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) |

## Job ID: 480-41193-1

**Laboratory: TestAmerica Buffalo**

**Narrative**

**Job Narrative**
**480-41193-1**

**Receipt**
The samples were received on 7/1/2013 4:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.5º C.

**GC/MS VOA**
Method(s) 8260B: The following volatiles sample(s) was diluted due to foaming at the time of purging during the original sample analysis: A4-MW-10 (480-41193-5), A4-MW-7R (480-41193-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: A4-MW-8R (480-41193-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**Metals**
Method(s) 6010B: The following sample was diluted due to the presence of Total Manganese which interferes with Chromium: A4-MW-7R (480-41193-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**General Chemistry**
Method(s) 335.4, 9012A, SM 4500 CN G: The results reported for the following sample(s) do not concur with results previously reported for this site: A4-MW-5R (480-41193-1), A4-MW-9 (480-41193-4). Reanalysis was performed, and the result(s) confirmed.

No other analytical or quality issues were noted.

# Detection Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Client Sample ID: A4-MW-5R — Lab Sample ID: 480-41193-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.60 | J | 1.0 | 0.41 | ug/L | 1 | | 8260B | Total/NA |
| m-Xylene & p-Xylene | 0.75 | J | 2.0 | 0.66 | ug/L | 1 | | 8260B | Total/NA |
| o-Xylene | 0.90 | J | 1.0 | 0.76 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 1.7 | J | 2.0 | 0.66 | ug/L | 1 | | 8260B | Total/NA |
| Naphthalene | 14 | | 1.0 | 0.43 | ug/L | 1 | | 8260B | Total/NA |
| Arsenic | 0.017 | | 0.010 | 0.0056 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.0016 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010B | Total/NA |
| Cyanide, Total | 0.26 | | 0.010 | 0.0050 | mg/L | 1 | | 9012A | Total/NA |

## Client Sample ID: A4-MW-7R — Lab Sample ID: 480-41193-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.011 | | 0.010 | 0.0056 | mg/L | 1 | | 6010B | Total/NA |
| Lead | 0.023 | | 0.0050 | 0.0030 | mg/L | 1 | | 6010B | Total/NA |
| Cyanide, Total | 0.091 | | 0.010 | 0.0050 | mg/L | 1 | | 9012A | Total/NA |

## Client Sample ID: A4-MW-8R — Lab Sample ID: 480-41193-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 27000 | | 500 | 210 | ug/L | 500 | | 8260B | Total/NA |
| Arsenic | 0.034 | | 0.010 | 0.0056 | mg/L | 1 | | 6010B | Total/NA |
| Cyanide, Total | 0.13 | | 0.010 | 0.0050 | mg/L | 1 | | 9012A | Total/NA |

## Client Sample ID: A4-MW-9 — Lab Sample ID: 480-41193-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 72 | | 1.0 | 0.41 | ug/L | 1 | | 8260B | Total/NA |
| Chromium | 0.0017 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010B | Total/NA |
| Cyanide, Total | 0.19 | | 0.010 | 0.0050 | mg/L | 1 | | 9012A | Total/NA |

## Client Sample ID: A4-MW-10 — Lab Sample ID: 480-41193-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0088 | J | 0.010 | 0.0056 | mg/L | 1 | | 6010B | Total/NA |
| Chromium | 0.0024 | J | 0.0040 | 0.0010 | mg/L | 1 | | 6010B | Total/NA |
| Cyanide, Total | 0.096 | | 0.010 | 0.0050 | mg/L | 1 | | 9012A | Total/NA |

## Client Sample ID: Trip Blank — Lab Sample ID: 480-41193-6

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: A4-MW-5R

**Lab Sample ID: 480-41193-1**

**Date Collected: 07/01/13 10:20**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **0.60** | **J** | 1.0 | 0.41 | ug/L | | | 07/07/13 23:45 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 07/07/13 23:45 | 1 |
| Toluene | ND | | 1.0 | 0.51 | ug/L | | | 07/07/13 23:45 | 1 |
| **m-Xylene & p-Xylene** | **0.75** | **J** | 2.0 | 0.66 | ug/L | | | 07/07/13 23:45 | 1 |
| **o-Xylene** | **0.90** | **J** | 1.0 | 0.76 | ug/L | | | 07/07/13 23:45 | 1 |
| **Xylenes, Total** | **1.7** | **J** | 2.0 | 0.66 | ug/L | | | 07/07/13 23:45 | 1 |
| Isopropylbenzene | ND | | 1.0 | 0.79 | ug/L | | | 07/07/13 23:45 | 1 |
| N-Propylbenzene | ND | | 1.0 | 0.69 | ug/L | | | 07/07/13 23:45 | 1 |
| 4-Isopropyltoluene | ND | | 1.0 | 0.31 | ug/L | | | 07/07/13 23:45 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/07/13 23:45 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | 0.77 | ug/L | | | 07/07/13 23:45 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.64 | ug/L | | | 07/07/13 23:45 | 1 |
| sec-Butylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/07/13 23:45 | 1 |
| **Naphthalene** | **14** | | 1.0 | 0.43 | ug/L | | | 07/07/13 23:45 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | 0.16 | ug/L | | | 07/07/13 23:45 | 1 |
| tert-Butylbenzene | ND | | 1.0 | 0.81 | ug/L | | | 07/07/13 23:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *66 - 137* | | *07/07/13 23:45* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *71 - 126* | | *07/07/13 23:45* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *73 - 120* | | *07/07/13 23:45* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.017** | | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:18 | 1 |
| **Chromium** | **0.0016** | **J** | 0.0040 | 0.0010 | mg/L | | 07/03/13 06:30 | 07/03/13 17:18 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:18 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cyanide, Total** | **0.26** | | 0.010 | 0.0050 | mg/L | | 07/08/13 09:41 | 07/08/13 20:29 | 1 |

## Client Sample ID: A4-MW-7R

**Lab Sample ID: 480-41193-2**

**Date Collected: 07/01/13 11:55**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.0 | 2.1 | ug/L | | | 07/05/13 18:53 | 5 |
| Ethylbenzene | ND | | 5.0 | 3.7 | ug/L | | | 07/05/13 18:53 | 5 |
| Toluene | ND | | 5.0 | 2.6 | ug/L | | | 07/05/13 18:53 | 5 |
| m-Xylene & p-Xylene | ND | | 10 | 3.3 | ug/L | | | 07/05/13 18:53 | 5 |
| o-Xylene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 18:53 | 5 |
| Xylenes, Total | ND | | 10 | 3.3 | ug/L | | | 07/05/13 18:53 | 5 |
| Isopropylbenzene | ND | | 5.0 | 4.0 | ug/L | | | 07/05/13 18:53 | 5 |
| N-Propylbenzene | ND | | 5.0 | 3.5 | ug/L | | | 07/05/13 18:53 | 5 |
| 4-Isopropyltoluene | ND | | 5.0 | 1.6 | ug/L | | | 07/05/13 18:53 | 5 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 18:53 | 5 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 3.9 | ug/L | | | 07/05/13 18:53 | 5 |
| n-Butylbenzene | ND | | 5.0 | 3.2 | ug/L | | | 07/05/13 18:53 | 5 |

## Client Sample ID: A4-MW-7R

**Lab Sample ID: 480-41193-2**

**Date Collected: 07/01/13 11:55**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 18:53 | 5 |
| Naphthalene | ND | | 5.0 | 2.2 | ug/L | | | 07/05/13 18:53 | 5 |
| Methyl tert-butyl ether | ND | | 5.0 | 0.80 | ug/L | | | 07/05/13 18:53 | 5 |
| tert-Butylbenzene | ND | | 5.0 | 4.1 | ug/L | | | 07/05/13 18:53 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *66 - 137* | | *07/05/13 18:53* | *5* |
| *Toluene-d8 (Surr)* | *101* | | *71 - 126* | | *07/05/13 18:53* | *5* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* | | *07/05/13 18:53* | *5* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.011** | | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:25 | 1 |
| Chromium | ND | | 0.020 | 0.0050 | mg/L | | 07/03/13 06:30 | 07/05/13 17:05 | 5 |
| **Lead** | **0.023** | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:25 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cyanide, Total** | **0.091** | | 0.010 | 0.0050 | mg/L | | 07/03/13 16:03 | 07/05/13 15:24 | 1 |

## Client Sample ID: A4-MW-8R

**Lab Sample ID: 480-41193-3**

**Date Collected: 07/01/13 12:40**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **27000** | | 500 | 210 | ug/L | | | 07/05/13 19:20 | 500 |
| Ethylbenzene | ND | | 500 | 370 | ug/L | | | 07/05/13 19:20 | 500 |
| Toluene | ND | | 500 | 260 | ug/L | | | 07/05/13 19:20 | 500 |
| m-Xylene & p-Xylene | ND | | 1000 | 330 | ug/L | | | 07/05/13 19:20 | 500 |
| o-Xylene | ND | | 500 | 380 | ug/L | | | 07/05/13 19:20 | 500 |
| Xylenes, Total | ND | | 1000 | 330 | ug/L | | | 07/05/13 19:20 | 500 |
| Isopropylbenzene | ND | | 500 | 400 | ug/L | | | 07/05/13 19:20 | 500 |
| N-Propylbenzene | ND | | 500 | 350 | ug/L | | | 07/05/13 19:20 | 500 |
| 4-Isopropyltoluene | ND | | 500 | 160 | ug/L | | | 07/05/13 19:20 | 500 |
| 1,2,4-Trimethylbenzene | ND | | 500 | 380 | ug/L | | | 07/05/13 19:20 | 500 |
| 1,3,5-Trimethylbenzene | ND | | 500 | 390 | ug/L | | | 07/05/13 19:20 | 500 |
| n-Butylbenzene | ND | | 500 | 320 | ug/L | | | 07/05/13 19:20 | 500 |
| sec-Butylbenzene | ND | | 500 | 380 | ug/L | | | 07/05/13 19:20 | 500 |
| Naphthalene | ND | | 500 | 220 | ug/L | | | 07/05/13 19:20 | 500 |
| Methyl tert-butyl ether | ND | | 500 | 80 | ug/L | | | 07/05/13 19:20 | 500 |
| tert-Butylbenzene | ND | | 500 | 410 | ug/L | | | 07/05/13 19:20 | 500 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *66 - 137* | | *07/05/13 19:20* | *500* |
| *Toluene-d8 (Surr)* | *104* | | *71 - 126* | | *07/05/13 19:20* | *500* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *73 - 120* | | *07/05/13 19:20* | *500* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.034** | | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:28 | 1 |

## Client Sample ID: A4-MW-8R

**Lab Sample ID: 480-41193-3**

**Date Collected: 07/01/13 12:40**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 07/03/13 06:30 | 07/03/13 17:28 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:28 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cyanide, Total** | **0.13** | | 0.010 | 0.0050 | mg/L | | 07/03/13 16:03 | 07/05/13 15:25 | 1 |

## Client Sample ID: A4-MW-9

**Lab Sample ID: 480-41193-4**

**Date Collected: 07/01/13 13:20**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **72** | | 1.0 | 0.41 | ug/L | | | 07/08/13 00:13 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 07/08/13 00:13 | 1 |
| Toluene | ND | | 1.0 | 0.51 | ug/L | | | 07/08/13 00:13 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | 0.66 | ug/L | | | 07/08/13 00:13 | 1 |
| o-Xylene | ND | | 1.0 | 0.76 | ug/L | | | 07/08/13 00:13 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 07/08/13 00:13 | 1 |
| Isopropylbenzene | ND | | 1.0 | 0.79 | ug/L | | | 07/08/13 00:13 | 1 |
| N-Propylbenzene | ND | | 1.0 | 0.69 | ug/L | | | 07/08/13 00:13 | 1 |
| 4-Isopropyltoluene | ND | | 1.0 | 0.31 | ug/L | | | 07/08/13 00:13 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/08/13 00:13 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | 0.77 | ug/L | | | 07/08/13 00:13 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.64 | ug/L | | | 07/08/13 00:13 | 1 |
| sec-Butylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/08/13 00:13 | 1 |
| Naphthalene | ND | | 1.0 | 0.43 | ug/L | | | 07/08/13 00:13 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | 0.16 | ug/L | | | 07/08/13 00:13 | 1 |
| tert-Butylbenzene | ND | | 1.0 | 0.81 | ug/L | | | 07/08/13 00:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *66 - 137* | | *07/08/13 00:13* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *71 - 126* | | *07/08/13 00:13* | *1* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *73 - 120* | | *07/08/13 00:13* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:40 | 1 |
| **Chromium** | **0.0017** | **J** | 0.0040 | 0.0010 | mg/L | | 07/03/13 06:30 | 07/03/13 17:40 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:40 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cyanide, Total** | **0.19** | | 0.010 | 0.0050 | mg/L | | 07/08/13 09:41 | 07/08/13 20:37 | 1 |

## Client Sample ID: A4-MW-10

**Lab Sample ID: 480-41193-5**

**Date Collected: 07/01/13 11:05**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.0 | 2.1 | ug/L | | | 07/05/13 20:16 | 5 |
| Ethylbenzene | ND | | 5.0 | 3.7 | ug/L | | | 07/05/13 20:16 | 5 |
| Toluene | ND | | 5.0 | 2.6 | ug/L | | | 07/05/13 20:16 | 5 |
| m-Xylene & p-Xylene | ND | | 10 | 3.3 | ug/L | | | 07/05/13 20:16 | 5 |
| o-Xylene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 20:16 | 5 |
| Xylenes, Total | ND | | 10 | 3.3 | ug/L | | | 07/05/13 20:16 | 5 |
| Isopropylbenzene | ND | | 5.0 | 4.0 | ug/L | | | 07/05/13 20:16 | 5 |
| N-Propylbenzene | ND | | 5.0 | 3.5 | ug/L | | | 07/05/13 20:16 | 5 |
| 4-Isopropyltoluene | ND | | 5.0 | 1.6 | ug/L | | | 07/05/13 20:16 | 5 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 20:16 | 5 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 3.9 | ug/L | | | 07/05/13 20:16 | 5 |
| n-Butylbenzene | ND | | 5.0 | 3.2 | ug/L | | | 07/05/13 20:16 | 5 |
| sec-Butylbenzene | ND | | 5.0 | 3.8 | ug/L | | | 07/05/13 20:16 | 5 |
| Naphthalene | ND | | 5.0 | 2.2 | ug/L | | | 07/05/13 20:16 | 5 |
| Methyl tert-butyl ether | ND | | 5.0 | 0.80 | ug/L | | | 07/05/13 20:16 | 5 |
| tert-Butylbenzene | ND | | 5.0 | 4.1 | ug/L | | | 07/05/13 20:16 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *66 - 137* | | *07/05/13 20:16* | *5* |
| *Toluene-d8 (Surr)* | *103* | | *71 - 126* | | *07/05/13 20:16* | *5* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *73 - 120* | | *07/05/13 20:16* | *5* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.0088** | **J** | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:42 | 1 |
| **Chromium** | **0.0024** | **J** | 0.0040 | 0.0010 | mg/L | | 07/03/13 06:30 | 07/03/13 17:42 | 1 |
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:42 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cyanide, Total** | **0.096** | | 0.010 | 0.0050 | mg/L | | 07/03/13 16:03 | 07/05/13 15:26 | 1 |

## Client Sample ID: Trip Blank

**Lab Sample ID: 480-41193-6**

**Date Collected: 07/01/13 09:00**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 07/05/13 20:43 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 07/05/13 20:43 | 1 |
| Toluene | ND | | 1.0 | 0.51 | ug/L | | | 07/05/13 20:43 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | 0.66 | ug/L | | | 07/05/13 20:43 | 1 |
| o-Xylene | ND | | 1.0 | 0.76 | ug/L | | | 07/05/13 20:43 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 07/05/13 20:43 | 1 |
| Isopropylbenzene | ND | | 1.0 | 0.79 | ug/L | | | 07/05/13 20:43 | 1 |
| N-Propylbenzene | ND | | 1.0 | 0.69 | ug/L | | | 07/05/13 20:43 | 1 |
| 4-Isopropyltoluene | ND | | 1.0 | 0.31 | ug/L | | | 07/05/13 20:43 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/05/13 20:43 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | 0.77 | ug/L | | | 07/05/13 20:43 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.64 | ug/L | | | 07/05/13 20:43 | 1 |

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

**Client Sample ID: Trip Blank**
**Date Collected: 07/01/13 09:00**
**Date Received: 07/01/13 16:05**

**Lab Sample ID: 480-41193-6**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/05/13 20:43 | 1 |
| Naphthalene | ND | | 1.0 | 0.43 | ug/L | | | 07/05/13 20:43 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | 0.16 | ug/L | | | 07/05/13 20:43 | 1 |
| tert-Butylbenzene | ND | | 1.0 | 0.81 | ug/L | | | 07/05/13 20:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *66 - 137* | | *07/05/13 20:43* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *71 - 126* | | *07/05/13 20:43* | *1* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *73 - 120* | | *07/05/13 20:43* | *1* |

# Surrogate Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 12DCE | TOL | BFB | | | | | | |
| Lab Sample ID | Client Sample ID | (66-137) | (71-126) | (73-120) | | | | | | |
| 480-41193-1 | A4-MW-5R | 103 | 104 | 102 | | | | | | |
| 480-41193-2 | A4-MW-7R | 104 | 101 | 104 | | | | | | |
| 480-41193-3 | A4-MW-8R | 106 | 104 | 106 | | | | | | |
| 480-41193-4 | A4-MW-9 | 105 | 102 | 101 | | | | | | |
| 480-41193-5 | A4-MW-10 | 105 | 103 | 103 | | | | | | |
| 480-41193-6 | Trip Blank | 104 | 101 | 103 | | | | | | |
| LCS 480-127616/4 | Lab Control Sample | 101 | 105 | 107 | | | | | | |
| LCS 480-127701/4 | Lab Control Sample | 100 | 105 | 104 | | | | | | |
| MB 480-127616/5 | Method Blank | 100 | 104 | 106 | | | | | | |
| MB 480-127701/5 | Method Blank | 98 | 104 | 103 | | | | | | |

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-127616/5**
**Matrix: Water**
**Analysis Batch: 127616**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 07/05/13 15:33 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 07/05/13 15:33 | 1 |
| Toluene | ND | | 1.0 | 0.51 | ug/L | | | 07/05/13 15:33 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | 0.66 | ug/L | | | 07/05/13 15:33 | 1 |
| o-Xylene | ND | | 1.0 | 0.76 | ug/L | | | 07/05/13 15:33 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 07/05/13 15:33 | 1 |
| Isopropylbenzene | ND | | 1.0 | 0.79 | ug/L | | | 07/05/13 15:33 | 1 |
| N-Propylbenzene | ND | | 1.0 | 0.69 | ug/L | | | 07/05/13 15:33 | 1 |
| 4-Isopropyltoluene | ND | | 1.0 | 0.31 | ug/L | | | 07/05/13 15:33 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/05/13 15:33 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | 0.77 | ug/L | | | 07/05/13 15:33 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.64 | ug/L | | | 07/05/13 15:33 | 1 |
| sec-Butylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/05/13 15:33 | 1 |
| Naphthalene | ND | | 1.0 | 0.43 | ug/L | | | 07/05/13 15:33 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | 0.16 | ug/L | | | 07/05/13 15:33 | 1 |
| tert-Butylbenzene | ND | | 1.0 | 0.81 | ug/L | | | 07/05/13 15:33 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *66 - 137* | | *07/05/13 15:33* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *71 - 126* | | *07/05/13 15:33* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *73 - 120* | | *07/05/13 15:33* | *1* |

**Lab Sample ID: LCS 480-127616/4**
**Matrix: Water**
**Analysis Batch: 127616**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 25.0 | 23.8 | | ug/L | | 95 | 71 - 124 |
| Ethylbenzene | 25.0 | 24.8 | | ug/L | | 99 | 77 - 123 |
| Toluene | 25.0 | 24.6 | | ug/L | | 98 | 80 - 122 |
| m-Xylene & p-Xylene | 50.0 | 51.0 | | ug/L | | 102 | 76 - 122 |
| o-Xylene | 25.0 | 25.3 | | ug/L | | 101 | 76 - 122 |
| 1,2,4-Trimethylbenzene | 25.0 | 23.8 | | ug/L | | 95 | 76 - 121 |
| Methyl tert-butyl ether | 25.0 | 24.6 | | ug/L | | 98 | 64 - 127 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *66 - 137* |
| *Toluene-d8 (Surr)* | *105* | | *71 - 126* |
| *4-Bromofluorobenzene (Surr)* | *107* | | *73 - 120* |

**Lab Sample ID: MB 480-127701/5**
**Matrix: Water**
**Analysis Batch: 127701**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 1.0 | 0.41 | ug/L | | | 07/07/13 22:20 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.74 | ug/L | | | 07/07/13 22:20 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-127701/5**
**Matrix: Water**
**Analysis Batch: 127701**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | ND | | 1.0 | 0.51 | ug/L | | | 07/07/13 22:20 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | 0.66 | ug/L | | | 07/07/13 22:20 | 1 |
| o-Xylene | ND | | 1.0 | 0.76 | ug/L | | | 07/07/13 22:20 | 1 |
| Xylenes, Total | ND | | 2.0 | 0.66 | ug/L | | | 07/07/13 22:20 | 1 |
| Isopropylbenzene | ND | | 1.0 | 0.79 | ug/L | | | 07/07/13 22:20 | 1 |
| N-Propylbenzene | ND | | 1.0 | 0.69 | ug/L | | | 07/07/13 22:20 | 1 |
| 4-Isopropyltoluene | ND | | 1.0 | 0.31 | ug/L | | | 07/07/13 22:20 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/07/13 22:20 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | 0.77 | ug/L | | | 07/07/13 22:20 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.64 | ug/L | | | 07/07/13 22:20 | 1 |
| sec-Butylbenzene | ND | | 1.0 | 0.75 | ug/L | | | 07/07/13 22:20 | 1 |
| Naphthalene | ND | | 1.0 | 0.43 | ug/L | | | 07/07/13 22:20 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | 0.16 | ug/L | | | 07/07/13 22:20 | 1 |
| tert-Butylbenzene | ND | | 1.0 | 0.81 | ug/L | | | 07/07/13 22:20 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *66 - 137* | | *07/07/13 22:20* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *71 - 126* | | *07/07/13 22:20* | *1* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *73 - 120* | | *07/07/13 22:20* | *1* |

**Lab Sample ID: LCS 480-127701/4**
**Matrix: Water**
**Analysis Batch: 127701**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 25.0 | 23.3 | | ug/L | | 93 | 71 - 124 |
| Ethylbenzene | 25.0 | 24.8 | | ug/L | | 99 | 77 - 123 |
| Toluene | 25.0 | 24.3 | | ug/L | | 97 | 80 - 122 |
| m-Xylene & p-Xylene | 50.0 | 50.3 | | ug/L | | 101 | 76 - 122 |
| o-Xylene | 25.0 | 24.6 | | ug/L | | 99 | 76 - 122 |
| 1,2,4-Trimethylbenzene | 25.0 | 23.5 | | ug/L | | 94 | 76 - 121 |
| Methyl tert-butyl ether | 25.0 | 23.1 | | ug/L | | 92 | 64 - 127 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *66 - 137* |
| *Toluene-d8 (Surr)* | *105* | | *71 - 126* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 480-127140/1-A**
**Matrix: Water**
**Analysis Batch: 127526**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 127140**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.010 | 0.0056 | mg/L | | 07/03/13 06:30 | 07/03/13 17:13 | 1 |
| Chromium | ND | | 0.0040 | 0.0010 | mg/L | | 07/03/13 06:30 | 07/03/13 17:13 | 1 |

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

**Lab Sample ID: MB 480-127140/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127526** — **Prep Batch: 127140**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | ND | | 0.0050 | 0.0030 | mg/L | | 07/03/13 06:30 | 07/03/13 17:13 | 1 |

**Lab Sample ID: LCS 480-127140/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127526** — **Prep Batch: 127140**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 0.200 | 0.217 | | mg/L | | 108 | 80 - 120 |
| Chromium | 0.200 | 0.213 | | mg/L | | 106 | 80 - 120 |
| Lead | 0.200 | 0.209 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: 480-41193-3 MS** — **Client Sample ID: A4-MW-8R**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127526** — **Prep Batch: 127140**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.034 | | 0.200 | 0.277 | | mg/L | | 122 | 75 - 125 |
| Chromium | ND | | 0.200 | 0.201 | | mg/L | | 100 | 75 - 125 |
| Lead | ND | | 0.200 | 0.210 | | mg/L | | 105 | 75 - 125 |

**Lab Sample ID: 480-41193-3 MSD** — **Client Sample ID: A4-MW-8R**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127526** — **Prep Batch: 127140**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.034 | | 0.200 | 0.278 | | mg/L | | 122 | 75 - 125 | 0 | 20 |
| Chromium | ND | | 0.200 | 0.203 | | mg/L | | 102 | 75 - 125 | 1 | 20 |
| Lead | ND | | 0.200 | 0.213 | | mg/L | | 106 | 75 - 125 | 1 | 20 |

## Method: 9012A - Cyanide, Total and/or Amenable

**Lab Sample ID: MB 480-127437/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127649** — **Prep Batch: 127437**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | ND | | 0.010 | 0.0050 | mg/L | | 07/03/13 16:03 | 07/05/13 15:20 | 1 |

**Lab Sample ID: LCS 480-127437/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 127649** — **Prep Batch: 127437**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Cyanide, Total | 0.250 | 0.248 | | mg/L | | 99 | 90 - 110 |

## Method: 9012A - Cyanide, Total and/or Amenable (Continued)

**Lab Sample ID: MB 480-127796/1-A**
**Matrix: Water**
**Analysis Batch: 127864**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 127796**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | ND | | 0.010 | 0.0050 | mg/L | | 07/08/13 09:41 | 07/08/13 20:21 | 1 |

**Lab Sample ID: LCS 480-127796/2-A**
**Matrix: Water**
**Analysis Batch: 127864**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 127796**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Cyanide, Total | 0.400 | 0.407 | | mg/L | | 102 | 90 - 110 |

## GC/MS VOA

### Analysis Batch: 127616

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 8260B | |
| 480-41193-3 | A4-MW-8R | Total/NA | Water | 8260B | |
| 480-41193-5 | A4-MW-10 | Total/NA | Water | 8260B | |
| 480-41193-6 | Trip Blank | Total/NA | Water | 8260B | |
| LCS 480-127616/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| MB 480-127616/5 | Method Blank | Total/NA | Water | 8260B | |

### Analysis Batch: 127701

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Total/NA | Water | 8260B | |
| 480-41193-4 | A4-MW-9 | Total/NA | Water | 8260B | |
| LCS 480-127701/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| MB 480-127701/5 | Method Blank | Total/NA | Water | 8260B | |

## Metals

### Prep Batch: 127140

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Total/NA | Water | 3005A | |
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 3005A | |
| 480-41193-3 | A4-MW-8R | Total/NA | Water | 3005A | |
| 480-41193-3 MS | A4-MW-8R | Total/NA | Water | 3005A | |
| 480-41193-3 MSD | A4-MW-8R | Total/NA | Water | 3005A | |
| 480-41193-4 | A4-MW-9 | Total/NA | Water | 3005A | |
| 480-41193-5 | A4-MW-10 | Total/NA | Water | 3005A | |
| LCS 480-127140/2-A | Lab Control Sample | Total/NA | Water | 3005A | |
| MB 480-127140/1-A | Method Blank | Total/NA | Water | 3005A | |

### Analysis Batch: 127526

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Total/NA | Water | 6010B | 127140 |
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 6010B | 127140 |
| 480-41193-3 | A4-MW-8R | Total/NA | Water | 6010B | 127140 |
| 480-41193-3 MS | A4-MW-8R | Total/NA | Water | 6010B | 127140 |
| 480-41193-3 MSD | A4-MW-8R | Total/NA | Water | 6010B | 127140 |
| 480-41193-4 | A4-MW-9 | Total/NA | Water | 6010B | 127140 |
| 480-41193-5 | A4-MW-10 | Total/NA | Water | 6010B | 127140 |
| LCS 480-127140/2-A | Lab Control Sample | Total/NA | Water | 6010B | 127140 |
| MB 480-127140/1-A | Method Blank | Total/NA | Water | 6010B | 127140 |

### Analysis Batch: 127753

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 6010B | 127140 |

## General Chemistry

### Prep Batch: 127437

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 9012A | |
| 480-41193-3 | A4-MW-8R | Total/NA | Water | 9012A | |

## General Chemistry (Continued)

### Prep Batch: 127437 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-5 | A4-MW-10 | Total/NA | Water | 9012A | |
| LCS 480-127437/2-A | Lab Control Sample | Total/NA | Water | 9012A | |
| MB 480-127437/1-A | Method Blank | Total/NA | Water | 9012A | |

### Analysis Batch: 127649

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-2 | A4-MW-7R | Total/NA | Water | 9012A | 127437 |
| 480-41193-3 | A4-MW-8R | Total/NA | Water | 9012A | 127437 |
| 480-41193-5 | A4-MW-10 | Total/NA | Water | 9012A | 127437 |
| LCS 480-127437/2-A | Lab Control Sample | Total/NA | Water | 9012A | 127437 |
| MB 480-127437/1-A | Method Blank | Total/NA | Water | 9012A | 127437 |

### Prep Batch: 127796

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Total/NA | Water | 9012A | |
| 480-41193-4 | A4-MW-9 | Total/NA | Water | 9012A | |
| LCS 480-127796/2-A | Lab Control Sample | Total/NA | Water | 9012A | |
| MB 480-127796/1-A | Method Blank | Total/NA | Water | 9012A | |

### Analysis Batch: 127864

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Total/NA | Water | 9012A | 127796 |
| 480-41193-4 | A4-MW-9 | Total/NA | Water | 9012A | 127796 |
| LCS 480-127796/2-A | Lab Control Sample | Total/NA | Water | 9012A | 127796 |
| MB 480-127796/1-A | Method Blank | Total/NA | Water | 9012A | 127796 |

# Lab Chronicle

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Client Sample ID: A4-MW-5R

**Lab Sample ID: 480-41193-1**

**Date Collected: 07/01/13 10:20**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 127701 | 07/07/13 23:45 | TRB | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 127526 | 07/03/13 17:18 | AMH | TAL BUF |
| Total/NA | Prep | 9012A | | | 127796 | 07/08/13 09:41 | KWJ | TAL BUF |
| Total/NA | Analysis | 9012A | | 1 | 127864 | 07/08/13 20:29 | JE | TAL BUF |

## Client Sample ID: A4-MW-7R

**Lab Sample ID: 480-41193-2**

**Date Collected: 07/01/13 11:55**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 5 | 127616 | 07/05/13 18:53 | CDC | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 127526 | 07/03/13 17:25 | AMH | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 5 | 127753 | 07/05/13 17:05 | LMH | TAL BUF |
| Total/NA | Prep | 9012A | | | 127437 | 07/03/13 16:03 | JMB | TAL BUF |
| Total/NA | Analysis | 9012A | | 1 | 127649 | 07/05/13 15:24 | NCH | TAL BUF |

## Client Sample ID: A4-MW-8R

**Lab Sample ID: 480-41193-3**

**Date Collected: 07/01/13 12:40**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 500 | 127616 | 07/05/13 19:20 | CDC | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 127526 | 07/03/13 17:28 | AMH | TAL BUF |
| Total/NA | Prep | 9012A | | | 127437 | 07/03/13 16:03 | JMB | TAL BUF |
| Total/NA | Analysis | 9012A | | 1 | 127649 | 07/05/13 15:25 | NCH | TAL BUF |

## Client Sample ID: A4-MW-9

**Lab Sample ID: 480-41193-4**

**Date Collected: 07/01/13 13:20**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 127701 | 07/08/13 00:13 | TRB | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 127526 | 07/03/13 17:40 | AMH | TAL BUF |
| Total/NA | Prep | 9012A | | | 127796 | 07/08/13 09:41 | KWJ | TAL BUF |
| Total/NA | Analysis | 9012A | | 1 | 127864 | 07/08/13 20:37 | JE | TAL BUF |

# Lab Chronicle

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Client Sample ID: A4-MW-10

**Lab Sample ID: 480-41193-5**

**Date Collected: 07/01/13 11:05**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 5 | 127616 | 07/05/13 20:16 | CDC | TAL BUF |
| Total/NA | Prep | 3005A | | | 127140 | 07/03/13 06:30 | JMM | TAL BUF |
| Total/NA | Analysis | 6010B | | 1 | 127526 | 07/03/13 17:42 | AMH | TAL BUF |
| Total/NA | Prep | 9012A | | | 127437 | 07/03/13 16:03 | JMB | TAL BUF |
| Total/NA | Analysis | 9012A | | 1 | 127649 | 07/05/13 15:26 | NCH | TAL BUF |

## Client Sample ID: Trip Blank

**Lab Sample ID: 480-41193-6**

**Date Collected: 07/01/13 09:00**

**Matrix: Water**

**Date Received: 07/01/13 16:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 127616 | 07/05/13 20:43 | CDC | TAL BUF |

**Laboratory References:**

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

# Certification Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Arkansas DEQ | State Program | 6 | 88-0686 | 07-06-13 * |
| California | NELAP | 9 | 1169CA | 09-30-13 |
| Connecticut | State Program | 1 | PH-0568 | 09-30-14 |
| Florida | NELAP | 4 | E87672 | 06-30-14 |
| Georgia | State Program | 4 | N/A | 03-31-14 |
| Georgia | State Program | 4 | 956 | 03-31-14 |
| Illinois | NELAP | 5 | 200003 | 09-30-13 |
| Iowa | State Program | 7 | 374 | 03-15-15 |
| Kansas | NELAP | 7 | E-10187 | 01-31-14 |
| Kentucky | State Program | 4 | 90029 | 12-31-13 |
| Kentucky (UST) | State Program | 4 | 30 | 04-01-14 |
| Louisiana | NELAP | 6 | 02031 | 06-30-14 |
| Maine | State Program | 1 | NY00044 | 12-04-13 |
| Maryland | State Program | 3 | 294 | 03-31-14 |
| Massachusetts | State Program | 1 | M-NY044 | 06-30-14 |
| Michigan | State Program | 5 | 9937 | 04-01-14 |
| Minnesota | NELAP | 5 | 036-999-337 | 12-31-13 |
| New Hampshire | NELAP | 1 | 2973 | 09-11-13 |
| New Hampshire | NELAP | 1 | 2337 | 11-17-13 |
| New Jersey | NELAP | 2 | NY455 | 06-30-13 * |
| New York | NELAP | 2 | 10026 | 04-01-14 |
| North Dakota | State Program | 8 | R-176 | 03-31-14 |
| Oklahoma | State Program | 6 | 9421 | 08-31-13 |
| Oregon | NELAP | 10 | NY200003 | 06-09-14 |
| Pennsylvania | NELAP | 3 | 68-00281 | 07-31-13 |
| Rhode Island | State Program | 1 | LAO00328 | 12-31-13 |
| Tennessee | State Program | 4 | TN02970 | 04-01-14 |
| Texas | NELAP | 6 | T104704412-11-2 | 07-31-13 |
| USDA | Federal | | P330-11-00386 | 11-22-14 |
| Virginia | NELAP | 3 | 460185 | 09-14-13 |
| Washington | State Program | 10 | C784 | 02-10-14 |
| West Virginia DEP | State Program | 3 | 252 | 09-30-13 |
| Wisconsin | State Program | 5 | 998310390 | 08-31-13 |

* Expired certification is currently pending renewal and is considered valid.

# Method Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| 6010B | Metals (ICP) | SW846 | TAL BUF |
| 9012A | Cyanide, Total and/or Amenable | SW846 | TAL BUF |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: Hydro-Air Components, Inc.
Project/Site: Hydro-Air Componenets

TestAmerica Job ID: 480-41193-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-41193-1 | A4-MW-5R | Water | 07/01/13 10:20 | 07/01/13 16:05 |
| 480-41193-2 | A4-MW-7R | Water | 07/01/13 11:55 | 07/01/13 16:05 |
| 480-41193-3 | A4-MW-8R | Water | 07/01/13 12:40 | 07/01/13 16:05 |
| 480-41193-4 | A4-MW-9 | Water | 07/01/13 13:20 | 07/01/13 16:05 |
| 480-41193-5 | A4-MW-10 | Water | 07/01/13 11:05 | 07/01/13 16:05 |
| 480-41193-6 | Trip Blank | Water | 07/01/13 09:00 | 07/01/13 16:05 |

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

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: PN, JW, PL | Lab PM: Deyo, Melissa L | Carrier Tracking No(s): | COC No: 480-37425-3205.1 |
|---|---|---|---|---|
| Client Contact: Bethany Zinni | Phone: | E-Mail: melissa.deyo@testamericainc.com | | Page: Page 1 of 1 |
| Company: Haley & Aldrich, Inc. | | | | Job #: |
| Address: 200 Town Centre Drive #2 | Due Date Requested: | | | |
| City: Rochester | TAT Requested (days): | | | |
| State, Zip: NY, 14623-4264 | | | | |
| Phone: 716-827-6510(Tel) | PO #: Purchase Order not requir | | | |
| Email: bzinni@haleyaldrich.com | WO #: | | | |
| Project Name: Hydro-Air Componenets | Project #: 48004458 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**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 - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 6010B - (MOD) TAL Metals ICP | 8260B - STARS List - VOA - 8260 | 9012A - Cyanide, Total | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | D | A | B | | |
| A4-MW-5R | 7-1-13 | 1020 | G | Water | | | 1 | 3 | 1 | | |
| A4-MW-7R | | 1155 | | Water | | | 1 | 3 | 1 | | |
| A4-MW-8R | | 1240 | | Water | | | 1 | 3 | 1 | | |
| A4-MW-9 | | 1320 | | Water | | | 1 | 3 | 1 | | |
| A4-MW-10 | | 1105 | | Water | | | 1 | 3 | 1 | | |
| TRIP BLANK | | 0900 | | Water | | | | 2 | | | |
| | | | | Water | | | | | | | |

***Possible Hazard Identification***
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)***
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | | 7-1-13/1605 | | | 7/1/13 1605 | |
| 2 | Relinquished by | Date/Time | Company | Received by: | Date/Time | Company |
| 3 | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.5 |
|---|---|---|

# LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH



PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-1-13

Sampling Data:

Well ID: A4-MW5R
Start time: 955
Finish Time: 1030

Well Depth: 11.14 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft

Initial Depth To Water: 4.50 ft
Depth Of Pump Intake: ft

Purging Device: Peristaltic
Tubing Present In Well: (Yes) No
Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1005 | 5.15 | | 80 | 800 mL | 15.15 | 6.06 | 8110 | 0.72 | 6.3 | 14 | |
| 1010 | 5.20 | | ↓ | 1.2 L | 15.39 | 6.10 | 8130 | 0.58 | 4.1 | 5 | |
| 1015 | 5.29 | | | 1.6 L | 15.47 | 6.13 | 8190 | 0.56 | 4.5 | -3 | |
| 1020 | 5.31 | | ↓ | 2.0 L | 15.50 | 6.14 | 8240 | 0.53 | 3.9 | -7 | |

Field Alkalinity: 289 mg/L
Field CO2: 42

Form 3010

# LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH



PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-1-13

Sampling Data:

Well ID: A4-MW7R
Start time: 1120
Finish Time: 1200
Well Depth: 13.30 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 3.62 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic
Tubing Present In Well: (Yes) No
Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1130 | 3.74 | | 80 | 1.8 | 14.98 | 4.74 | 5590 | 0.48 | 160 | 53 | |
| 1135 | 3.76 | | | 1.~~8~~ | 14.91 | 4.71 | 5560 | 0.46 | 107 | 44 | |
| 1140 | 3.74 | | | ~~2.4~~ DN 7-1-13 2.6 | 15.01 | 4.69 | 5330 | 0.47 | 44 | 34 | |
| 1145 | 3.74 | | | 2.0 | 15.93 | 4.70 | 5001 | 0.36 | 15.7 | 19 | |
| 1150 | " | | | 2.4 | 15.98 | 4.73 | 4950 | 0.34 | 11.9 | 16 | |
| 1155 | " | | | 2.8 | 16.02 | 4.76 | 4946 | 0.34 | 13.9 | 17 | |

Field Alkalinity: 289 mg/L
Field CO2: 389 mg/L





Form 3010

# LOW FLOW/MNA FIELD SAMPLING FORM



HALEY & ALDRICH

PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-17

**Sampling Data:**

Well ID: A4-MW8R
Start time: ~~1205~~ 1210
Finish Time: 1250
Well Depth: 15.10 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 3.74 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic
Tubing Present In Well: (Yes) No
Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~1215~~ 1220 | 5.15 | | 80 | .8 | 16.20 | 5.78 | 2670 | 0.23 | 6.4 | -2 | |
| 1225 | 5.19 | | | 1.2 | 15.88 | 5.77 | 2850 | 0.21 | 4.6 | -7 | |
| 1230 | 5.27 | | | 1.6 | 15.74 | 5.74 | 3470 | 0.20 | 1.7 | -8 | |
| 1235 | 5.29 | | | 2.0 | 15.72 | 5.71 | 3510 | 0.21 | 1.5 | -6 | |
| 1240 | 5.31 | | ↓ | 2.4 | 15.68 | 5.69 | 3490 | 0.21 | 1.9 | -6 | |

Field Alkalinity: 765 mg/L
Field CO2: 175 mg/L

Form 3010

# LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH



PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-1-13

**Sampling Data:**

Well ID: A4-mw-9
Start time: 1255
Finish Time: 1330
Well Depth: 13.40 ft
Depth To Top Of Screen: ft
Depth To Bottom Of Screen: ft
Initial Depth To Water: 4.45 ft
Depth Of Pump Intake: ft
Purging Device: Peristaltic
Tubing Present In Well: (Yes) No
Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1305 | 4.96 | | 70 | .70 | 15.72 | 6.24 | 14600 | 0.22 | 24.5 | -13 | |
| 1310 | 4.98 | | " | 1.05 | 15.69 | 6.29 | 14460 | 0.14 | 6.87 | -15 | |
| 1315 | " | | " | 1.40 | 15.68 | 6.30 | 14390 | 0.17 | 5.63 | -19 | |
| 1320 | " | | " | 1.75 | 15.63 | 6.31 | 14400 | 0.12 | 5.23 | -26 | |

Field Alkalinity: 289 mg/L
Field CO2: 542 mg/L

Form 3010

# LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH



PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-1-13

**Sampling Data:**

Well ID: A4-MW-10 Well Depth: 15.25 ft Initial Depth To Water: 6.08 ft Purging Device: Peristaltic

Start time: 1040 Depth To Top Of Screen: ft Depth Of Pump Intake: ft Tubing Present In Well: (Yes) No

Finish Time: 1110 Depth To Bottom Of Screen: ft Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or (gal) | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1050 | 6.31 | | 75 | .375 | 15 | 6.09 | 2830 | 0.56 | 25.2 | 14 | |
| 1055 | 6.33 | | ↓ | .750 | 14.95 | 6.07 | 2830 | 0.52 | 8.8 | 12 | |
| 1100 | 6.36 | | | 1.12 | 14.88 | 6.05 | 2820 | 0.48 | 6.3 | 9 | |
| 1105 | 6.36 | | ↓ | 1.49 | 14.81 | 6.04 | 2820 | 0.46 | 6.5 | 7 | |

Field Alkalinity: 2993 mg/L
Field CO2: 55 mg/L

# LOW FLOW/MNA FIELD SAMPLING FORM



| | | | |
|---|---|---|---|
| PROJECT | HYDRO-AIR | H&A FILE NO. | |
| LOCATION | BUFFALO NEW YORK | PROJECT MGR. | |
| CLIENT | HYDRO-AIR | FIELD REP | |
| CONTRACTOR | TESTAMERICA, INC. BUFFALO | DATE | 7-2-13 |

**Sampling Data:**

Well ID: A4-ORC 1 | Well Depth: 14.30 ft | Initial Depth To Water: 2.91 ft | Purging Device: Peristaltic

Start time: 1000 | Depth To Top Of Screen: ft | Depth Of Pump Intake: ft | Tubing Present In Well: (Yes) No

Finish Time: 1035 | Depth To Bottom Of Screen: ft | Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temperature (°F) or (°C) | pH | Conductivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1015 | 3.42 | | 60 | .90 | 19.55 | 3.12 | 27200 | 1.06 | 3.3 | 260 | Amber color w/ slight |
| 1020 | 3.49 | | | 1.2 | 19.53 | 3.09 | 27400 | 1.01 | 5.7 | 262 | odor |
| 1025 | | | | 1.5 | 18.44 | 3.07 | 28000 | 0.68 | 3.7 | 264 | |
| 1030 | | | | 1.8 | 18.53 | 3.03 | 27900 | 0.62 | 3.2 | 265 | |
| 1035 | | | | 2.1 | 18.60 | 3.01 | 27400 | 0.67 | 3.2 | 267 | |

Field Alkalinity: Unable due to color of sample

Field CO2:

# ORC WELL ANNUAL INSPECTION FORM
## Active ORC monitoring wells

Project Name: HYDROAIR | Project No.:

Project Location: Buffalo NY | Client:

Preparer's Name: Pete Nyznyk, Tom Webster | Date/Time: 7-2-13 1035

| | A4 - ORC - 1 | | A4 - ORC - 2 | | A4 - ORC - 3 | |
|---|---|---|---|---|---|---|
| sampling dates: | 7-2-13 | 1035 | | | | |
| ***Field groundwater quality measurements*** | | | | | | |
| Water Level | 3.49 | | | | | |
| Bottom Depth | 14.30 | | | | | |
| pH | 3.01 | | | | | |
| Temperature | 18.60 | | | | | |
| DO | 0.67 | | | | | |
| ORP | 267 | | | | | |
| Alkalinity | NA | | | | | |

Refer to Figure 1 for well locations

**Well integrity**

| | | | |
|---|---|---|---|
| Cement seal | ☐ good | ☒ poor | If poor please note well. Buried |
| Pro - casing condition | ☐ good | ☐ poor | If poor please note any damage. |
| Lock condition | ☒ good | ☐ poor | If poor please note well. |
| Working J - plug | ☒ yes | ☐ no | If no please note well. |

**ORC Sock's**

Have any Socks been replaced ☐ yes ☐ no

If replaced on what date and why.

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. 12.45 to Sock

Are all ORC wells begin sampled and maintained according to the site management plan

☐ yes ☐ no

If no please state why.

Initial: PJN Date: 7-2-13

# LOW FLOW/MNA FIELD SAMPLING FORM



HALEY & ALDRICH

| | | | |
|---|---|---|---|
| PROJECT | HYDRO-AIR | H&A FILE NO. | |
| LOCATION | BUFFALO NEW YORK | PROJECT MGR. | |
| CLIENT | HYDRO-AIR | FIELD REP | |
| CONTRACTOR | TESTAMERICA, INC. BUFFALO | DATE | 7-2-13 |

**Sampling Data:**

Well ID: A4-ORC2 Well Depth: 11.55 ft Initial Depth To Water: 1.23 ft Purging Device: Peristaltic

Start time: 1045 Depth To Top Of Screen: ft Depth Of Pump Intake: ft Tubing Present In Well: (Yes) No

Finish Time: 1115 Depth To Bottom Of Screen: ft Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1055 | 1.66 | | 60 | .6 | 17.60 | 1.99 | 28300 | 0.53 | 25.5 | 444 | Amber in color w/ odor |
| 1100 | 1.80 | | ↓ | .9 | 17.56 | 1.90 | 27900 | 0.50 | 28.8 | 450 | |
| 1105 | 2.01 | | | 1.2 | 17.91 | 1.80 | 27400 | 0.35 | 19.8 | 455 | |
| 1110 | 2.07 | | | 1.5 | 17.87 | 1.81 | 27800 | 0.32 | 18.7 | 459 | |
| 1115 | 2.08 | | ↓ | 1.8 | 17.84 | 1.81 | 27300 | 0.32 | 18.6 | 461 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | Field Alkalinity: Unable due to |
| | | | | | | | | | | | Field CO2: sample characteristics |

Form 3010

# ORC WELL ANNUAL INSPECTION FORM
## Active ORC monitoring wells

Project Name: HYPRO AIR | Project No.:

Project Location: Buffalo NY | Client:

Preparer's Name: Pete Nyznyk, Tom Webster | Date/Time: 7-2-13 1115

| | A4 - ORC - 1 | | A4 - ORC - 2 | | A4 - ORC - 3 | |
|---|---|---|---|---|---|---|
| sampling dates: | | | 7-2-13 | 1115 | | |
| ***Field groundwater quality measurements*** | | | | | | |
| Water Level | | | 2.08 | | | |
| Bottom Depth | | | 11.55 | | | |
| pH | | | 1.81 | | | |
| Temperature | | | 17.84 | | | |
| DO | | | 0.32 | | | |
| ORP | | | 461 | | | |
| Alkalinity | | | NA | | | |

Refer to Figure 1 for well locations

**Well integrity**

| | | | |
|---|---|---|---|
| Cement seal | ☐ good | ☒ poor | If poor please note well. Buried |
| Pro - casing condition | ☐ good | ☐ poor | If poor please note any damage. |
| Lock condition | ☒ good | ☐ poor | If poor please note well. |
| Working J - plug | ☐ yes | ☐ no | If no please note well. |

**ORC Sock's**

Have any Socks been replaced ☐ yes ☐ no

If replaced on what date and why.

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why. Depth to Sock 10.98 ft

Are all ORC wells begin sampled and maintained according to the site management plan

☐ yes ☐ no

If no please state why.

Initial: PSN Date: 7-2-13

# LOW FLOW/MNA FIELD SAMPLING FORM

HALEY & ALDRICH



PROJECT: HYDRO-AIR
LOCATION: BUFFALO NEW YORK
CLIENT: HYDRO-AIR
CONTRACTOR: TESTAMERICA, INC. BUFFALO

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE: 7-2-13

**Sampling Data:**

Well ID: A4-ORC-3 | Well Depth: 10.46 ft | Initial Depth To Water: 3.55 ft | Purging Device: Peristaltic
Start time: 1210 | Depth To Top Of Screen: ft | Depth Of Pump Intake: ft | Tubing Present In Well: (Yes) No
Finish Time: 1250 | Depth To Bottom Of Screen: ft | Tubing Type:

| Elapsed Time (24 hour) | Depth To Water From Casing (ft) | Pump Setting (ml/min) or (gal/min) | Purge Rate (ml/min) or ~~(gal/min)~~ | Cumulative Purge Vol. (liters) or ~~(gal)~~ | Temp-erature (°F) or (°C) | pH | Conduct-ivity (us/cm) | Dissolved Oxygen (mg/L) | Turbidity (NTU) | ORP/eH (mv) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1220 | 4.52 | | 100 | .6 | 20.28 | 4.94 | 20100 | 0.44 | ~~30.2~~ 302 | 341 | Amber in color w/odor |
| 1225 | 4.61 | | | .9 | 20.32 | 4.96 | 19900 | 0.27 | 156 | 333 | |
| 1230 | 4.69 | | | 1.2 | 20.39 | 4.97 | 19700 | 0.29 | 102 | 329 | |
| 1235 | 4.72 | | | 1.5 | 20.45 | 4.95 | 19700 | 0.31 | 76 | 312 | |
| 1240 | | | | 1.8 | 20.51 | 4.95 | 19900 | 0.33 | 42 | 309 | |
| 1245 | | | | 2.1 | 20.54 | 4.92 | 19700 | 0.36 | 37 | 302 | |
| 1250 | | | | 2.4 | 20.52 | 4.96 | 1 | 0.35 | 39 | 302 | |

Field Alkalinity: unable due to
Field CO2: sample characteristics

Form 3010

# ORC WELL ANNUAL INSPECTION FORM
## Active ORC monitoring wells

Project Name: HYDRO AIR | Project No.:

Project Location: Buffalo NY | Client:

Preparer's Name: Pete Nyznyk | Date/Time: 7-2-13 ~~1235~~ PW 7-2-13 1250

| | A4 - ORC - 1 | | A4 - ORC - 2 | | A4 - ORC - 3 | |
|---|---|---|---|---|---|---|
| sampling dates: | | | | | 7-2-13 | ~~1235~~ 1250 PW-7-2-13 |
| ***Field groundwater quality measurements*** | | | | | | |
| Water Level | | | | | 4.72 | |
| Bottom Depth | | | | | 10.46 | |
| pH | | | | | 4.96 | |
| Temperature | | | | | 20.52 | |
| DO | | | | | 0.35 | |
| ORP | | | | | 302 | |
| Alkalinity | | | | | NA | |

Refer to Figure 1 for well locations

**Well integrity**

| | | | |
|---|---|---|---|
| Cement seal | ☐ good | ☒ poor | If poor please note well. Buried |
| Pro - casing condition | ☐ good | ☐ poor | If poor please note any damage. |
| Lock condition | ☒ good | ☐ poor | If poor please note well. |
| Working J - plug | ☐ yes | ☐ no | If no please note well. |

**ORC Sock's**

Have any Socks been replaced ☐ yes ☐ no

If replaced on what date and why.

Are socks fully submerged in well screens. ☐ yes ☐ no

If no explain why. Depth to sock 10.07

Are all ORC wells begin sampled and maintained according to the site management plan

☐ yes ☐ no

If no please state why.

Initial: PJN Date: 7-2-13

# Login Sample Receipt Checklist

Client: Hydro-Air Components, Inc.

Job Number: 480-41193-1

**Login Number: 41193**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Stau, Brandon M**

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