

ANALYTICAL REPORT

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Laboratory Job ID: 460-196213-1
Client Project/Site: Ford LTP Livonia MI - E203728

For:
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Authorized for release by:
11/21/2019 3:15:39 PM

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

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

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



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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

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. |
| U | Indicates the analyte was analyzed for but not detected. |

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 |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Job ID: 460-196213-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI - E203728

Report Number: 460-196213-1

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

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

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

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

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

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

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

RECEIPT

The samples were received on 11/7/2019 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples Trip Blank (460-196213-1), MW-48_110619 (460-196213-2), MW-67_110619 (460-196213-3), MW-47_110619 (460-196213-4) and DUP-14 (460-196213-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 11/17/2019.

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

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples MW-48_110619 (460-196213-2), MW-67_110619 (460-196213-3), MW-47_110619 (460-196213-4) and DUP-14 (460-196213-5) were analyzed for Volatile organic compounds (GC/MS) in accordance with SW-846 Method 8260C SIM. The samples were analyzed on 11/15/2019 and 11/16/2019.

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

Detection Summary

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Client Sample ID: Trip Blank

Lab Sample ID: 460-196213-1

No Detections.

Client Sample ID: MW-48_110619

Lab Sample ID: 460-196213-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| 1,4-Dioxane | 2.5 | | 2.0 | 0.33 | ug/L | 1 | | 8260C SIM | Total/NA |
| Vinyl chloride | 0.57 | J | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |

Client Sample ID: MW-67_110619

Lab Sample ID: 460-196213-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 0.34 | J | 1.0 | 0.26 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 9.7 | | 1.0 | 0.22 | ug/L | 1 | | 8260C | Total/NA |
| trans-1,2-Dichloroethene | 1.7 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 70 | | 1.0 | 0.31 | ug/L | 1 | | 8260C | Total/NA |
| Vinyl chloride | 0.91 | J | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |

Client Sample ID: MW-47_110619

Lab Sample ID: 460-196213-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| 1,1-Dichloroethene | 0.42 | J | 1.0 | 0.26 | ug/L | 1 | | 8260C | Total/NA |
| cis-1,2-Dichloroethene | 28 | | 1.0 | 0.22 | ug/L | 1 | | 8260C | Total/NA |
| trans-1,2-Dichloroethene | 5.2 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| Vinyl chloride | 96 | | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |

Client Sample ID: DUP-14

Lab Sample ID: 460-196213-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-----|------|------|---------|---|--------|-----------|
| cis-1,2-Dichloroethene | 10 | | 1.0 | 0.22 | ug/L | 1 | | 8260C | Total/NA |
| trans-1,2-Dichloroethene | 1.3 | | 1.0 | 0.24 | ug/L | 1 | | 8260C | Total/NA |
| Trichloroethene | 71 | | 1.0 | 0.31 | ug/L | 1 | | 8260C | Total/NA |
| Vinyl chloride | 0.81 | J | 1.0 | 0.17 | ug/L | 1 | | 8260C | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Client Sample ID: Trip Blank

Date Collected: 11/06/19 13:26

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.26 | ug/L | - | | 11/17/19 00:56 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.22 | ug/L | - | | 11/17/19 00:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | - | | 11/17/19 00:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | - | | 11/17/19 00:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.31 | ug/L | - | | 11/17/19 00:56 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.17 | ug/L | - | | 11/17/19 00:56 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 94 | | 74 - 132 | | 11/17/19 00:56 | 1 |
| Toluene-d8 (Surr) | 98 | | 80 - 120 | | 11/17/19 00:56 | 1 |
| Dibromofluoromethane (Surr) | 99 | | 72 - 131 | | 11/17/19 00:56 | 1 |
| 4-Bromofluorobenzene | 96 | | 77 - 124 | | 11/17/19 00:56 | 1 |

Client Sample ID: MW-48_110619

Date Collected: 11/06/19 10:25

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-2

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.5 | | 2.0 | 0.33 | ug/L | - | | 11/15/19 22:51 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 91 | | 72 - 133 | | 11/15/19 22:51 | 1 |

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.26 | ug/L | - | | 11/17/19 02:25 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.22 | ug/L | - | | 11/17/19 02:25 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | - | | 11/17/19 02:25 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | - | | 11/17/19 02:25 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.31 | ug/L | - | | 11/17/19 02:25 | 1 |
| Vinyl chloride | 0.57 | J | 1.0 | 0.17 | ug/L | - | | 11/17/19 02:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 74 - 132 | | 11/17/19 02:25 | 1 |
| Toluene-d8 (Surr) | 99 | | 80 - 120 | | 11/17/19 02:25 | 1 |
| Dibromofluoromethane (Surr) | 97 | | 72 - 131 | | 11/17/19 02:25 | 1 |
| 4-Bromofluorobenzene | 98 | | 77 - 124 | | 11/17/19 02:25 | 1 |

Client Sample ID: MW-67_110619

Date Collected: 11/06/19 11:46

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-3

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.33 | ug/L | - | | 11/15/19 23:17 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 90 | | 72 - 133 | | 11/15/19 23:17 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Client Sample ID: MW-67_110619

Lab Sample ID: 460-196213-3

Date Collected: 11/06/19 11:46

Matrix: Water

Date Received: 11/07/19 10:10

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 0.34 | J | 1.0 | 0.26 | ug/L | - | | 11/17/19 02:48 | 1 |
| cis-1,2-Dichloroethene | 9.7 | | 1.0 | 0.22 | ug/L | - | | 11/17/19 02:48 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | - | | 11/17/19 02:48 | 1 |
| trans-1,2-Dichloroethene | 1.7 | | 1.0 | 0.24 | ug/L | - | | 11/17/19 02:48 | 1 |
| Trichloroethene | 70 | | 1.0 | 0.31 | ug/L | - | | 11/17/19 02:48 | 1 |
| Vinyl chloride | 0.91 | J | 1.0 | 0.17 | ug/L | - | | 11/17/19 02:48 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 74 - 132 | | 11/17/19 02:48 | 1 |
| Toluene-d8 (Surr) | 100 | | 80 - 120 | | 11/17/19 02:48 | 1 |
| Dibromofluoromethane (Surr) | 101 | | 72 - 131 | | 11/17/19 02:48 | 1 |
| 4-Bromofluorobenzene | 98 | | 77 - 124 | | 11/17/19 02:48 | 1 |

Client Sample ID: MW-47_110619

Lab Sample ID: 460-196213-4

Date Collected: 11/06/19 13:26

Matrix: Water

Date Received: 11/07/19 10:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.33 | ug/L | - | | 11/15/19 23:41 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 89 | | 72 - 133 | | 11/15/19 23:41 | 1 |

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 0.42 | J | 1.0 | 0.26 | ug/L | - | | 11/17/19 03:10 | 1 |
| cis-1,2-Dichloroethene | 28 | | 1.0 | 0.22 | ug/L | - | | 11/17/19 03:10 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | - | | 11/17/19 03:10 | 1 |
| trans-1,2-Dichloroethene | 5.2 | | 1.0 | 0.24 | ug/L | - | | 11/17/19 03:10 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.31 | ug/L | - | | 11/17/19 03:10 | 1 |
| Vinyl chloride | 96 | | 1.0 | 0.17 | ug/L | - | | 11/17/19 03:10 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 74 - 132 | | 11/17/19 03:10 | 1 |
| Toluene-d8 (Surr) | 100 | | 80 - 120 | | 11/17/19 03:10 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 72 - 131 | | 11/17/19 03:10 | 1 |
| 4-Bromofluorobenzene | 100 | | 77 - 124 | | 11/17/19 03:10 | 1 |

Client Sample ID: DUP-14

Lab Sample ID: 460-196213-5

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 10:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.33 | ug/L | - | | 11/16/19 00:06 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 94 | | 72 - 133 | | 11/16/19 00:06 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Client Sample ID: DUP-14

Lab Sample ID: 460-196213-5

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 10:10

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/19 03:32 | 1 |
| cis-1,2-Dichloroethene | 10 | | 1.0 | 0.22 | ug/L | | | 11/17/19 03:32 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/19 03:32 | 1 |
| trans-1,2-Dichloroethene | 1.3 | | 1.0 | 0.24 | ug/L | | | 11/17/19 03:32 | 1 |
| Trichloroethene | 71 | | 1.0 | 0.31 | ug/L | | | 11/17/19 03:32 | 1 |
| Vinyl chloride | 0.81 | J | 1.0 | 0.17 | ug/L | | | 11/17/19 03:32 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 74 - 132 | | 11/17/19 03:32 | 1 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 | | 11/17/19 03:32 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 72 - 131 | | 11/17/19 03:32 | 1 |
| 4-Bromofluorobenzene | 98 | | 77 - 124 | | 11/17/19 03:32 | 1 |

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | DCA (74-132) | TOL (80-120) | DBFM (72-131) | BFB (77-124) |
|--------------------|------------------------|-----------------|-----------------|------------------|-----------------|
| 460-196210-A-2 MSD | Matrix Spike Duplicate | 96 | 102 | 100 | 101 |
| 460-196210-B-2 MS | Matrix Spike | 95 | 102 | 99 | 102 |
| 460-196213-1 | Trip Blank | 94 | 98 | 99 | 96 |
| 460-196213-2 | MW-48_110619 | 95 | 99 | 97 | 98 |
| 460-196213-3 | MW-67_110619 | 96 | 100 | 101 | 98 |
| 460-196213-4 | MW-47_110619 | 99 | 100 | 100 | 100 |
| 460-196213-5 | DUP-14 | 96 | 102 | 100 | 98 |
| LCS 460-655939/4 | Lab Control Sample | 96 | 105 | 102 | 100 |
| MB 460-655939/9 | Method Blank | 98 | 103 | 101 | 100 |

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (72-133) |
|-------------------|------------------------|-----------------|
| 460-196213-2 | MW-48_110619 | 91 |
| 460-196213-3 | MW-67_110619 | 90 |
| 460-196213-4 | MW-47_110619 | 89 |
| 460-196213-5 | DUP-14 | 94 |
| LCS 460-655659/3 | Lab Control Sample | 103 |
| LCSD 460-655659/4 | Lab Control Sample Dup | 92 |
| MB 460-655659/8 | Method Blank | 96 |

Surrogate Legend

BFB = 4-Bromofluorobenzene

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-655939/9
Matrix: Water
Analysis Batch: 655939

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.26 | ug/L | | | 11/17/19 00:12 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.22 | ug/L | | | 11/17/19 00:12 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.25 | ug/L | | | 11/17/19 00:12 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.24 | ug/L | | | 11/17/19 00:12 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.31 | ug/L | | | 11/17/19 00:12 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.17 | ug/L | | | 11/17/19 00:12 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 74 - 132 | | 11/17/19 00:12 | 1 |
| Toluene-d8 (Surr) | 103 | | 80 - 120 | | 11/17/19 00:12 | 1 |
| Dibromofluoromethane (Surr) | 101 | | 72 - 131 | | 11/17/19 00:12 | 1 |
| 4-Bromofluorobenzene | 100 | | 77 - 124 | | 11/17/19 00:12 | 1 |

Lab Sample ID: LCS 460-655939/4
Matrix: Water
Analysis Batch: 655939

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1-Dichloroethene | 20.0 | 20.1 | | ug/L | | 101 | 74 - 123 |
| cis-1,2-Dichloroethene | 20.0 | 18.7 | | ug/L | | 94 | 80 - 120 |
| Tetrachloroethene | 20.0 | 19.6 | | ug/L | | 98 | 78 - 122 |
| trans-1,2-Dichloroethene | 20.0 | 19.6 | | ug/L | | 98 | 79 - 120 |
| Trichloroethene | 20.0 | 19.3 | | ug/L | | 97 | 77 - 120 |
| Vinyl chloride | 20.0 | 23.1 | | ug/L | | 116 | 62 - 138 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 74 - 132 |
| Toluene-d8 (Surr) | 105 | | 80 - 120 |
| Dibromofluoromethane (Surr) | 102 | | 72 - 131 |
| 4-Bromofluorobenzene | 100 | | 77 - 124 |

Lab Sample ID: 460-196210-A-2 MSD
Matrix: Water
Analysis Batch: 655939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| 1,1-Dichloroethene | 1.0 | U | 20.0 | 21.3 | | ug/L | | 107 | 74 - 123 | 17 | 30 |
| cis-1,2-Dichloroethene | 1.0 | U | 20.0 | 20.8 | | ug/L | | 104 | 80 - 120 | 19 | 30 |
| Tetrachloroethene | 1.0 | U | 20.0 | 20.9 | | ug/L | | 105 | 78 - 122 | 19 | 30 |
| trans-1,2-Dichloroethene | 1.0 | U | 20.0 | 21.2 | | ug/L | | 106 | 79 - 120 | 15 | 30 |
| Trichloroethene | 1.0 | U | 20.0 | 21.2 | | ug/L | | 106 | 77 - 120 | 19 | 30 |
| Vinyl chloride | 1.0 | U | 20.0 | 25.2 | | ug/L | | 126 | 62 - 138 | 20 | 30 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 96 | | 74 - 132 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 |
| Dibromofluoromethane (Surr) | 100 | | 72 - 131 |

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-196210-A-2 MSD
Matrix: Water
Analysis Batch: 655939

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|----------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene | 101 | | 77 - 124 |

Lab Sample ID: 460-196210-B-2 MS
Matrix: Water
Analysis Batch: 655939

Client Sample ID: Matrix Spike
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| 1,1-Dichloroethene | 1.0 | U | 20.0 | 18.0 | | ug/L | | 90 | 74 - 123 |
| cis-1,2-Dichloroethene | 1.0 | U | 20.0 | 17.1 | | ug/L | | 86 | 80 - 120 |
| Tetrachloroethene | 1.0 | U | 20.0 | 17.3 | | ug/L | | 87 | 78 - 122 |
| trans-1,2-Dichloroethene | 1.0 | U | 20.0 | 18.2 | | ug/L | | 91 | 79 - 120 |
| Trichloroethene | 1.0 | U | 20.0 | 17.5 | | ug/L | | 87 | 77 - 120 |
| Vinyl chloride | 1.0 | U | 20.0 | 20.7 | | ug/L | | 104 | 62 - 138 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 74 - 132 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 |
| Dibromofluoromethane (Surr) | 99 | | 72 - 131 |
| 4-Bromofluorobenzene | 102 | | 77 - 124 |

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-655659/8
Matrix: Water
Analysis Batch: 655659

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,4-Dioxane | 2.0 | U | 2.0 | 0.33 | ug/L | | | 11/15/19 15:49 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|--------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 96 | | 72 - 133 | | 11/15/19 15:49 | 1 |

Lab Sample ID: LCS 460-655659/3
Matrix: Water
Analysis Batch: 655659

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene | 0.0500 | 0.10 | U | ug/L | | 100 | 10 - 150 |
| Chloroform | 0.0500 | 0.10 | U | ug/L | | 111 | 59 - 150 |
| 1,2,3-Trichloropropane | 0.0500 | 0.0576 | | ug/L | | 115 | 63 - 133 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|----------------------|---------------|---------------|----------|
| 4-Bromofluorobenzene | 103 | | 72 - 133 |

QC Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-655659/4
Matrix: Water
Analysis Batch: 655659

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-----------------------|-----------------------|------|---|------|--------------|-----|---------------|
| Benzene | 0.0500 | 0.10 | U | ug/L | | 96 | 10 - 150 | 5 | |
| Chloroform | 0.0500 | 0.10 | U | ug/L | | 103 | 59 - 150 | 7 | |
| 1,2,3-Trichloropropane | 0.0500 | 0.0493 | | ug/L | | 99 | 63 - 133 | 15 | 30 |
| Surrogate | | LCSD %Recovery | LCSD Qualifier | | | | | | Limits |
| 4-Bromofluorobenzene | | 92 | | | | | | | 72 - 133 |



QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

GC/MS VOA

Analysis Batch: 655659

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|-----------|------------|
| 460-196213-2 | MW-48_110619 | Total/NA | Water | 8260C SIM | |
| 460-196213-3 | MW-67_110619 | Total/NA | Water | 8260C SIM | |
| 460-196213-4 | MW-47_110619 | Total/NA | Water | 8260C SIM | |
| 460-196213-5 | DUP-14 | Total/NA | Water | 8260C SIM | |
| MB 460-655659/8 | Method Blank | Total/NA | Water | 8260C SIM | |
| LCS 460-655659/3 | Lab Control Sample | Total/NA | Water | 8260C SIM | |
| LCSD 460-655659/4 | Lab Control Sample Dup | Total/NA | Water | 8260C SIM | |

Analysis Batch: 655939

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 460-196213-1 | Trip Blank | Total/NA | Water | 8260C | |
| 460-196213-2 | MW-48_110619 | Total/NA | Water | 8260C | |
| 460-196213-3 | MW-67_110619 | Total/NA | Water | 8260C | |
| 460-196213-4 | MW-47_110619 | Total/NA | Water | 8260C | |
| 460-196213-5 | DUP-14 | Total/NA | Water | 8260C | |
| MB 460-655939/9 | Method Blank | Total/NA | Water | 8260C | |
| LCS 460-655939/4 | Lab Control Sample | Total/NA | Water | 8260C | |
| 460-196210-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260C | |
| 460-196210-B-2 MS | Matrix Spike | Total/NA | Water | 8260C | |

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Client Sample ID: Trip Blank

Date Collected: 11/06/19 13:26

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 655939 | 11/17/19 00:56 | VBP | TAL EDI |

Client Sample ID: MW-48_110619

Date Collected: 11/06/19 10:25

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 655939 | 11/17/19 02:25 | VBP | TAL EDI |
| Total/NA | Analysis | 8260C SIM | | 1 | 655659 | 11/15/19 22:51 | KLB | TAL EDI |

Client Sample ID: MW-67_110619

Date Collected: 11/06/19 11:46

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 655939 | 11/17/19 02:48 | VBP | TAL EDI |
| Total/NA | Analysis | 8260C SIM | | 1 | 655659 | 11/15/19 23:17 | KLB | TAL EDI |

Client Sample ID: MW-47_110619

Date Collected: 11/06/19 13:26

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 655939 | 11/17/19 03:10 | VBP | TAL EDI |
| Total/NA | Analysis | 8260C SIM | | 1 | 655659 | 11/15/19 23:41 | KLB | TAL EDI |

Client Sample ID: DUP-14

Date Collected: 11/06/19 00:00

Date Received: 11/07/19 10:10

Lab Sample ID: 460-196213-5

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 655939 | 11/17/19 03:32 | VBP | TAL EDI |
| Total/NA | Analysis | 8260C SIM | | 1 | 655659 | 11/16/19 00:06 | KLB | TAL EDI |

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

Laboratory: Eurofins TestAmerica, Edison

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

| Authority | Program | Identification Number | Expiration Date |
|-----------------------------------|---------------------|-----------------------|-----------------|
| Connecticut | State | PH-0200 | 09-30-20 |
| DE Haz. Subst. Cleanup Act (HSCA) | State | <cert No.> | 12-31-21 |
| Georgia | State | 12028 (NJ) | 06-30-20 |
| New Jersey | NELAP | 12028 | 06-30-20 |
| New York | NELAP | 11452 | 04-01-20 |
| Pennsylvania | NELAP | 68-00522 | 02-28-20 |
| Rhode Island | State | LAO00132 | 12-30-19 |
| USDA | US Federal Programs | P330-18-00135 | 05-03-21 |

Laboratory: Eurofins TestAmerica, Canton

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

| Authority | Program | Identification Number | Expiration Date |
|-----------------------|---------------------|-----------------------|-----------------|
| California | State | 2927 | 02-23-20 |
| Connecticut | State | PH-0590 | 12-31-19 |
| Florida | NELAP | E87225 | 06-30-20 |
| Georgia | State | 4062 | 02-23-20 |
| Illinois | NELAP | 004498 | 07-31-20 |
| Iowa | State | 421 | 06-01-20 |
| Kansas | NELAP | E-10336 | 04-30-20 |
| Kentucky (UST) | State | 112225 | 02-23-20 |
| Kentucky (WW) | State | KY98016 | 12-31-19 |
| Minnesota | NELAP | OH00048 | 12-31-19 |
| Minnesota (Petrofund) | State Program | 3506 | 07-31-21 |
| New Jersey | NELAP | OH001 | 06-30-20 |
| New York | NELAP | 10975 | 03-31-20 |
| Ohio VAP | State | CL0024 | 06-05-21 |
| Oregon | NELAP | 4062 | 02-23-20 |
| Pennsylvania | NELAP | 68-00340 | 08-31-20 |
| Texas | NELAP | T104704517-18-10 | 08-31-20 |
| USDA | US Federal Programs | P330-16-00404 | 12-28-19 |
| Virginia | NELAP | 010101 | 09-14-20 |
| Washington | State | C971 | 01-12-20 |
| West Virginia DEP | State | 210 | 12-31-19 |

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

| Method | Method Description | Protocol | Laboratory |
|-----------|-------------------------------------|----------|------------|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL EDI |
| 8260C SIM | Volatile Organic Compounds (GC/MS) | SW846 | TAL EDI |
| 5030C | Purge and Trap | SW846 | TAL EDI |

Protocol References:

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

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900



Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI - E203728

Job ID: 460-196213-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 460-196213-1 | Trip Blank | Water | 11/06/19 13:26 | 11/07/19 10:10 | |
| 460-196213-2 | MW-48_110619 | Water | 11/06/19 10:25 | 11/07/19 10:10 | |
| 460-196213-3 | MW-67_110619 | Water | 11/06/19 11:46 | 11/07/19 10:10 | |
| 460-196213-4 | MW-47_110619 | Water | 11/06/19 13:26 | 11/07/19 10:10 | |
| 460-196213-5 | DUP-14 | Water | 11/06/19 00:00 | 11/07/19 10:10 | |

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Chain of Custody Record

TestAmerica Laboratory location: Brighton — 10448 Ciation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

Company Name: Arcadis
 Client Contact: _____
 Address: 28550 Cabot Drive, Suite 500
 City/State/Zip: Novi, MI 48377
 Telephone: 248-994-2240
 Email: Kristoffer.hinskey@arcadis.com
 Regulatory program: DW NPDES RCRA Other _____

Client Project Manager: Kris Hinskey
 Site Contact: Rachel Bielak
 Telephone: 248-994-2240
 Telephone: 248-946-6331
 Lab Contact: Mike Dehntonico
 Telephone: 330-497-9396
 COC No: 196213

Project Name: Ford LIP On-Site
 Project Number: 30016346-0001B
 Method of Shipment/Carrier: Xenia Chan
 Shipping/Trading No: _____

Sampler Name: _____
 TAT if different from below:
 3 weeks
 2 weeks
 1 week
 2 days
 1 day

Matrix: Air Aqueous Sediment Solid Other: _____
 Containers & Preservatives: H2SO4 HNO3 HCl NaOH ZnAc/NaOH Unpres Other: _____

Filtered Sample (Y/N)
 Composite=C / Grab=G
 1,1-DCE 8260B
 cis-1,2-DCE 8260B
 Trans-1,2-DCE 8260B
 PCE 8260B
 TCE 8260B
 Vinyl Chloride 8260B
 1,4-Dioxane 8260B SIM

Sample Specific Notes / Special Instructions:
 1 Trip Blank
 3 Vials for 8260B
 3 Vials for 8260B SIM

| TRIP BLANK | Sample Date | Sample Time | Matrix | | | | | Containers & Preservatives | | | | | | Analyses | | | | | Sample Specific Notes / Special Instructions | | | | | | | | |
|------------|-------------|-------------|--------|---------|----------|-------|-------|----------------------------|------|-----|------|-----------|--------|----------|---------------|-------------------|---------------------|-----------|--|-----------|----------------------|-----------------------|--|--|--|--|--|
| | | | Air | Aqueous | Sediment | Solid | Other | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Unpres | Other | 1,1-DCE 8260B | cis-1,2-DCE 8260B | Trans-1,2-DCE 8260B | PCE 8260B | | TCE 8260B | Vinyl Chloride 8260B | 1,4-Dioxane 8260B SIM | | | | | |
| | 11/6/19 | 1025 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11/6/19 | 1146 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11/6/19 | 1320 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11/6/19 | | X | | | | | | | | | | | | | | | | | | | | | | | | |



Possible Hazard Identification
 Non-Hazard Flammable Corrosive Toxic Other: _____
 Special Instructions/QC Requirements & Comments:
 Non-Hazard Flammable Corrosive Toxic Other: _____

Submit all results through Cadena at jim.tomalia@cadenalabs.com, Cadena #E208728
 Level IV Reporting requested.

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---------------------------|----------|--------------|--------------------|----------|--------------|
| Belm | Arcadis | 11/6/19/1406 | M. Hoff | Arcadis | 11/6/19/1406 |
| M. Hoff | Arcadis | 11/6/19/1530 | April Carol Steyer | Arcadis | 11/6/19/1530 |
| RECEIVED BREAKE POOL FORD | APL APL | 11/7/19 1010 | Joni Harris | ETA | 11-7-19 1010 |

Send to: Jim Hoff 11/7/19 1344-ETA
 Ryana Knordt Edison TX 11-8-19 915
 Via FedEx 1E# 9 1.70C Seal-1055237

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 196213

Number of Coolers: 1

IR Gun # _____

Cooler Temperatures

| | RAW | | CORRECTED | | | RAW | | CORRECTED | | | RAW | | CORRECTED | |
|------------|----------|-----------|-----------|----|------------|-----|----|------------|----|----|-------------|----|-----------|----|
| | °C | °C | °C | °C | | °C | °C | °C | °C | | °C | °C | °C | °C |
| Cooler #1: | <u>7</u> | <u>11</u> | °C | °C | Cooler #4: | °C | °C | Cooler #7: | °C | °C | Cooler #10: | °C | °C | |
| Cooler #2: | °C | °C | °C | °C | Cooler #5: | °C | °C | Cooler #8: | °C | °C | Cooler #11: | °C | °C | |
| Cooler #3: | °C | °C | °C | °C | Cooler #6: | °C | °C | Cooler #9: | °C | °C | Cooler #12: | °C | °C | |

| TALS Sample Number | (pH<2) | (pH<2) | (pH<2) | (pH<2) | (pH<2) | (pH 5-9) | (pH<2) | (pH<2) | (pH>9) | (pH<2) | (pH<2) | (pH<2) | Total Cyanide | Total Phos | Other | Other |
|--------------------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|--------|--------|---------------|------------|-------|-------|
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If pH adjustments are required record the information below:

Sample No(s), adjusted: _____

Preservative Name/Conc.: _____

Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____

Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: PLC

Date: 11-8-19

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 460-196213-1

Login Number: 196213

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: DiGuardia, Joseph L

| Question | Answer | Comment |
|---|--------|-------------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | CS# 1055237 |
| Sample custody seals, if present, are 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 containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |