

June 08, 2016

ATC Group Services  
Attn: Mr. Robert Smith  
46555 Humboldt, Suite 100  
Novi, MI 48377

**Project: Matrix Head Start**

Dear Mr. Robert Smith,

Enclosed is a copy of the laboratory report for the following work order(s) received by TriMatrix Laboratories:

| <b>Work Order</b> | <b>Received</b> | <b>Description</b> |
|-------------------|-----------------|--------------------|
| 1605679           | 05/27/2016      | Infinity II        |

This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ANAB DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/13-049-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#200026/003329); Kentucky DEP (AL123065/#0021); Michigan DPH (#0034); Minnesota DPH (#491715); New York ELAP (#11776/53116); North Carolina DNRE (#659); Virginia DCLS (#460153/7952); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-14-00305).

Any qualification or narration of results, including sample acceptance requirements and test exceptions to the above referenced programs, is presented in the Statement of Data Qualifications and Project Technical Narrative sections of this report. Estimates of analytical uncertainties and certification documents for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Gary L. Wood  
Project Chemist

**PROJECT TECHNICAL NARRATIVE(s)**

No Project Narrative is associated with this report.

**STATEMENT OF DATA QUALIFICATIONS**

All analyses have been validated and comply with our Quality Control Program.  
No Qualification is required.

## ANALYTICAL REPORT

Client: **ATC Group Services**  
 Project: Matrix Head Start  
 Client Sample ID: **1-KS-P-INF II**  
 Lab Sample ID: **1605679-01**  
 Matrix: Drinking Water

Work Order: **1605679**  
 Description: Infinity II  
 Sampled: 05/27/16 06:27  
 Sampled By: ATC  
 Received: 05/27/16 16:45

### Metals in Drinking Water by EPA 200 Series Methods

| Analyte | Analytical Result | RL     | Action Limit | Unit | Dilution Factor | Method               | Date Time Analyzed | By  | QC Batch |
|---------|-------------------|--------|--------------|------|-----------------|----------------------|--------------------|-----|----------|
| Lead    | 0.0018            | 0.0010 | 0.015        | mg/L | 1               | USEPA-200.8 Rev. 5.4 | 06/07/16 12:36     | DSC | 1605654  |

## ANALYTICAL REPORT

Client: **ATC Group Services**  
 Project: Matrix Head Start  
 Client Sample ID: **2-DWC-P-INF II**  
 Lab Sample ID: **1605679-03**  
 Matrix: Drinking Water

Work Order: **1605679**  
 Description: Infinity II  
 Sampled: 05/27/16 06:30  
 Sampled By: ATC  
 Received: 05/27/16 16:45

### Metals in Drinking Water by EPA 200 Series Methods

| Analyte | Analytical Result | RL     | Action Limit | Unit | Dilution Factor | Method               | Date Time Analyzed | By  | QC Batch |
|---------|-------------------|--------|--------------|------|-----------------|----------------------|--------------------|-----|----------|
| Lead    | <0.0010           | 0.0010 | 0.015        | mg/L | 1               | USEPA-200.8 Rev. 5.4 | 06/07/16 13:03     | DSC | 1605776  |

## ANALYTICAL REPORT

Client: **ATC Group Services**  
 Project: Matrix Head Start  
 Client Sample ID: **3-SF-P-INF II**  
 Lab Sample ID: **1605679-05**  
 Matrix: Drinking Water

Work Order: **1605679**  
 Description: Infinity II  
 Sampled: 05/27/16 06:33  
 Sampled By: ATC  
 Received: 05/27/16 16:45

### Metals in Drinking Water by EPA 200 Series Methods

| Analyte | Analytical Result | RL     | Action Limit | Unit | Dilution Factor | Method               | Date Time Analyzed | By  | QC Batch |
|---------|-------------------|--------|--------------|------|-----------------|----------------------|--------------------|-----|----------|
| Lead    | <0.0010           | 0.0010 | 0.015        | mg/L | 1               | USEPA-200.8 Rev. 5.4 | 06/07/16 13:05     | DSC | 1605776  |

## QUALITY CONTROL REPORT

### Metals in Drinking Water by EPA 200 Series Methods

| QC Type | Sample Conc. | Spike Qty. | Result | Unit | Spike % Rec. | Control Limits | RPD | RPD Limits | RL |
|---------|--------------|------------|--------|------|--------------|----------------|-----|------------|----|
|---------|--------------|------------|--------|------|--------------|----------------|-----|------------|----|

**Analyte:** Lead/USEPA-200.8 Rev. 5.4

QC Batch: 1605654 (Metals Direct Analysis)

Analyzed: 06/07/2016 By: DSC

|                           |  |        |               |      |    |        |  |  |        |
|---------------------------|--|--------|---------------|------|----|--------|--|--|--------|
| Method Blank              |  |        | <0.0010       | mg/L |    |        |  |  | 0.0010 |
| Laboratory Control Sample |  | 0.0400 | <b>0.0386</b> | mg/L | 96 | 85-115 |  |  | 0.0010 |

QC Batch: 1605776 (Metals Direct Analysis)

Analyzed: 06/07/2016 By: DSC

|                           |  |        |               |      |    |        |  |  |        |
|---------------------------|--|--------|---------------|------|----|--------|--|--|--------|
| Method Blank              |  |        | <0.0010       | mg/L |    |        |  |  | 0.0010 |
| Laboratory Control Sample |  | 0.0400 | <b>0.0386</b> | mg/L | 96 | 85-115 |  |  | 0.0010 |

**PRETREATMENT SUMMARY PAGE**

Client: **ATC Group Services**  
Project: **Matrix Head Start**

| <b>Pretreatment</b> | <b>Lab Sample ID</b> | <b>Batch</b> | <b>By</b> | <b>Date &amp; Time Prepared</b> |
|---------------------|----------------------|--------------|-----------|---------------------------------|
| USEPA 600/R-94/173  | 1605679-01           | 1605654      | LNS       | 06/02/16 08:35                  |
|                     | 1605679-03           | 1605776      | ARB       | 06/05/16 15:47                  |
|                     | 1605679-05           | 1605776      | ARB       | 06/05/16 15:47                  |





# Chain of Custody Record

COC No.

160539511

For Lab Use Only

5560 Corporate Exchange Court SE, Grand Rapids, MI 49512  
Phone (616) 975-4500 Fax (616) 942-7463 www.trimatrixlabs.com

Analyses Requested

Pg. 1 of 1

Cart 13

VOA Rack/Tray

Client Name

ATC Group Services, LLC

Project Name

Matrix Head Start- Infinity II

Receipt Log No.

Address

Client Project No. / P.O. No.

Project Chemist

City, State Zip

Invoice To

☒ Client  
☐ Other (comments)

Work Order No.

Phone: 248-669-5140 Fax 248-669-5147

Contact/Report To

Robert Smith

Schedule

Field Sample ID

Cooler ID

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Date

Sample Time

Container Type (corresponds to Container Packing List)

Number of Containers Submitted

Total Sample Comments

Sampled By (print)

Dawn Winter

How Shipped?

Tracking No.

Hand

Carrier

Comments

If lead is above detection limits, please analyze flush samples

Sampler's Signature

Dawn Winter

How Shipped?

Tracking No.

Hand

Carrier

Comments

If lead is above detection limits, please analyze flush samples

Company

Relinquished By

Date

Time

Comments

If lead is above detection limits, please analyze flush samples

Relinquished By

Date

Time

Comments

If lead is above detection limits, please analyze flush samples

Relinquished By

Date

Time

Comments

If lead is above detection limits, please analyze flush samples

ORIGINAL - LABORATORY

COPY - SAMPLER



# SAMPLE RECEIVING / LOG-IN CHECKLIST



**TRIMATRIX**  
LABORATORIES

|   |  |
|---|--|
| Client: <u>QTC GROUP</u>                | Work Order #: <u>1605679</u>                       |
| Receipt Record Page/Line #: <u>4-33</u> | Project Chemist: <u>JDH</u> Sample #: <u>01-06</u> |

|  |  |                        |  |   |
|--|--|------------------------|--|---|
| Recorded by (initials/date): <u>DN 5/27/16</u> | <input checked="" type="checkbox"/> Cooler<br><input type="checkbox"/> Box<br><input type="checkbox"/> Other | Qty Received: <u>1</u> | <input checked="" type="checkbox"/> IR Gun (#202)<br><input type="checkbox"/> Digital Thermometer (#54)<br><input type="checkbox"/> Other (# ) | Thermometer Used: <input type="checkbox"/> See Additional Cooler Information Form |
|--|--|------------------------|--|---|

| Cooler #  | Time                 | Cooler #  | Time | Cooler #  | Time                 | Cooler #  | Time |
|---|----------------------|---|------|---|----------------------|---|------|
| <u>772531</u>   | <u>1839</u>          |   |      |   |                      |   |      |
| Custody Seals:<br><input checked="" type="checkbox"/> None<br><input type="checkbox"/> Present / Intact<br><input type="checkbox"/> Present / Not Intact  |                      | Custody Seals:<br><input type="checkbox"/> None<br><input type="checkbox"/> Present / Intact<br><input type="checkbox"/> Present / Not Intact   |      | Custody Seals:<br><input type="checkbox"/> None<br><input type="checkbox"/> Present / Intact<br><input type="checkbox"/> Present / Not Intact   |                      | Custody Seals:<br><input type="checkbox"/> None<br><input type="checkbox"/> Present / Intact<br><input type="checkbox"/> Present / Not Intact   |      |
| Coolant Type:<br><input type="checkbox"/> Loose Ice<br><input type="checkbox"/> Bagged Ice<br><input type="checkbox"/> Blue Ice<br><input checked="" type="checkbox"/> None   |                      | Coolant Type:<br><input type="checkbox"/> Loose Ice<br><input type="checkbox"/> Bagged Ice<br><input type="checkbox"/> Blue Ice<br><input type="checkbox"/> None  |      | Coolant Type:<br><input type="checkbox"/> Loose Ice<br><input type="checkbox"/> Bagged Ice<br><input type="checkbox"/> Blue Ice<br><input type="checkbox"/> None  |                      | Coolant Type:<br><input type="checkbox"/> Loose Ice<br><input type="checkbox"/> Bagged Ice<br><input type="checkbox"/> Blue Ice<br><input type="checkbox"/> None  |      |
| Coolant Location:<br>Dispersed / Top / Middle / Bottom<br>Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Present, Temperature Blank Location is:<br><input type="checkbox"/> Representative <input type="checkbox"/> Not Representative |                      | Coolant Location:<br>Dispersed / Top / Middle / Bottom<br>Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Present, Temperature Blank Location is:<br><input type="checkbox"/> Representative <input type="checkbox"/> Not Representative |      | Coolant Location:<br>Dispersed / Top / Middle / Bottom<br>Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Present, Temperature Blank Location is:<br><input type="checkbox"/> Representative <input type="checkbox"/> Not Representative |                      | Coolant Location:<br>Dispersed / Top / Middle / Bottom<br>Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Present, Temperature Blank Location is:<br><input type="checkbox"/> Representative <input type="checkbox"/> Not Representative |      |
| Observed °C   | Correction Factor °C | Actual °C   |      | Observed °C   | Correction Factor °C | Actual °C   |      |
| Temp Blank:   |                      |   |      | Temp Blank:   |                      |   |      |
| Sample 1: <u>25.7</u>   | <u>0</u>             | <u>25.7</u>   |      | Sample 1:   |                      |   |      |
| Sample 2: <u>24.6</u>   | <u>0</u>             | <u>24.6</u>   |      | Sample 2:   |                      |   |      |
| Sample 3: <u>24.4</u>   | <u>0</u>             | <u>24.4</u>   |      | Sample 3:   |                      |   |      |
| 3 Sample Average °C: <u>24.9</u>  |                      |   |      | 3 Sample Average °C:  |                      |   |      |
| <input type="checkbox"/> Cooler ID on COC?<br><input type="checkbox"/> VOC Trip Blank received?   |                      |   |      | <input type="checkbox"/> Cooler ID on COC?<br><input type="checkbox"/> VOC Trip Blank received?   |                      |   |      |

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

## Paperwork Received

|  |                             |
|--|-----------------------------|
| Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Chain of Custody record(s)? If No, Initiated By _____<br>Received for Lab Signed/Date/Time? _____<br><input type="checkbox"/> Shipping document?<br><input type="checkbox"/> Other _____ |                             |

## COC Information

|   |                                  |
|---|----------------------------------|
| <input checked="" type="checkbox"/> TriMatrix COC<br><input type="checkbox"/> Other _____ | COC ID Numbers: <u>160539511</u> |
|---|----------------------------------|

## Check COC for Accuracy

|  |                             |
|--|-----------------------------|
| Yes <input checked="" type="checkbox"/>  | No <input type="checkbox"/> |
| <input type="checkbox"/> Analysis Requested?<br><input checked="" type="checkbox"/> Sample ID matches COC?<br><input checked="" type="checkbox"/> Sample Date and Time matches COC?<br><input checked="" type="checkbox"/> Container type completed on COC?<br><input checked="" type="checkbox"/> All container types indicated are received? |                             |

## Sample Condition Summary

|   |                              |                             |
|---|------------------------------|-----------------------------|
| N/A <input checked="" type="checkbox"/>   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Broken containers/lids?<br><input checked="" type="checkbox"/> Missing or incomplete labels?<br><input checked="" type="checkbox"/> Illegible information on labels?<br><input checked="" type="checkbox"/> Low volume received?<br><input checked="" type="checkbox"/> Inappropriate or non-TriMatrix containers received?<br><input type="checkbox"/> VOC vials / TOX containers have headspace?<br><input type="checkbox"/> Extra sample locations / containers not listed on COC? |                              |                             |

## Check Sample Preservation

|   |                              |                             |
|---|------------------------------|-----------------------------|
| N/A <input checked="" type="checkbox"/>   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Temperature Blank OR average sample temperature, ≥6° C?<br>If either is ≥6° C, was thermal preservation required?<br>If "Yes", Project Chemist Approval Initials: _____<br>If "Yes" Completed Non Con Cooler - Cont Inventory Form?<br>Completed Sample Preservation Verification Form?<br><input checked="" type="checkbox"/> Samples chemically preserved correctly?<br>If "No", added orange tag?<br><input checked="" type="checkbox"/> Received pre-preserved VOC soils?<br><input type="checkbox"/> MeOH <input type="checkbox"/> Na <sub>2</sub> SO <sub>4</sub> |                              |                             |

## Check for Short Hold-Time Prep/Analyses

|   |  |
|---|--|
| <input type="checkbox"/> Bacteriological<br><input type="checkbox"/> Air Bags<br><input type="checkbox"/> EnCores / Methanol Pre-Preserved<br><input type="checkbox"/> Formaldehyde/Aldehyde<br><input type="checkbox"/> Green-tagged containers<br><input type="checkbox"/> Yellow/White-tagged 1 L ambers (SV Prep-Lab) | <b>AFTER HOURS ONLY:</b><br>COPIES OF COC TO LAB AREA(S)<br><input checked="" type="checkbox"/> NONE RECEIVED<br><input type="checkbox"/> RECEIVED, COCs TO LAB(S) |
|---|--|

## Notes

|  |   |                                   |
|--|---|-----------------------------------|
| <input type="checkbox"/> Trip Blank received <input type="checkbox"/> Trip Blank not listed on COC |   |                                   |
| Cooler Received (Date/Time): <u>DN 5/27/16</u>   | Paperwork Delivered (Date/Time): <u>5/27/16</u> | ≤1 Hour Goal Met? <u>Yes / No</u> |



|                    |                            |   |   |
|--------------------|----------------------------|---|---|
| Client: <u>ATC</u> | Receipt Log #: <u>4-33</u> | Completed By (initials/date): <u>DN 5/27/16</u> | Lab # <u>1605</u><br>Project Chemist <u>SDR</u><br>Sample ID # <u>1605679</u> |
|--------------------|----------------------------|---|---|

|                           |          |                                |                                |                                   |                  |  |  |  |  |  |  |
|---------------------------|----------|--------------------------------|--------------------------------|-----------------------------------|------------------|--|--|--|--|--|--|
| COC ID # <u>160539511</u> |          |                                |                                | Adjusted by: _____<br>Date: _____ |                  |  |  | DO NOT ADJUST pH FOR THESE CONTAINER TYPES |  |  |  |
| Container Type            | 5 / 23   | 4                              | 13                             | 6                                 | 15               |  |  |  |  |  |  |
| Tag Color                 | Lt. Blue | Blue                           | Brown                          | Red                               | Red Stripe       |  |  |  |  |  |  |
| Preservative              | NaOH     | H <sub>2</sub> SO <sub>4</sub> | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub>                  | HNO <sub>3</sub> |  |  |  |  |  |  |
| Expected pH               | >12      | <2                             | <2                             | <2                                | <2               |  |  |  |  |  |  |
| COC Line #1               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #2               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #3               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #4               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #5               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #6               |          |                                |                                | ✓                                 |                  |  |  |  |  |  |  |
| COC Line #7               |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #8               |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #9               |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #10              |          |                                |                                |                                   |                  |  |  |  |  |  |  |

Comments

|                                     |                |
|-------------------------------------|----------------|
| pH Strip Reagent #                  |                |
| <input checked="" type="checkbox"/> | <b>6040263</b> |
| <input type="checkbox"/>            |                |

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 6 and 15.

|                |          |                                |                                |                                   |                  |  |  |  |  |  |  |
|----------------|----------|--------------------------------|--------------------------------|-----------------------------------|------------------|--|--|--|--|--|--|
| COC ID # _____ |          |                                |                                | Adjusted by: _____<br>Date: _____ |                  |  |  | DO NOT ADJUST pH FOR THESE CONTAINER TYPES |  |  |  |
| Container Type | 5 / 23   | 4                              | 13                             | 6                                 | 15               |  |  |  |  |  |  |
| Tag Color      | Lt. Blue | Blue                           | Brown                          | Red                               | Red Stripe       |  |  |  |  |  |  |
| Preservative   | NaOH     | H <sub>2</sub> SO <sub>4</sub> | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub>                  | HNO <sub>3</sub> |  |  |  |  |  |  |
| Expected pH    | >12      | <2                             | <2                             | <2                                | <2               |  |  |  |  |  |  |
| COC Line #1    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #2    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #3    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #4    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #5    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #6    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #7    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #8    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #9    |          |                                |                                |                                   |                  |  |  |  |  |  |  |
| COC Line #10   |          |                                |                                |                                   |                  |  |  |  |  |  |  |

Comments

| Container Size (mL)                                   | Original Vol. of Preservative (mL) |
|---|------------------------------------|
| Container Type 5      NaOH                            |                                    |
| 500   | 2.5                                |
| 1000  | 5.0                                |
| Container Type 4      H <sub>2</sub> SO <sub>4</sub>  |                                    |
| 125   | 0.5                                |
| 250   | 1.0                                |
| 500   | 2.0                                |
| 1000  | 4.0                                |
| Container Type 13      H <sub>2</sub> SO <sub>4</sub> |                                    |
| 500   | 2.5                                |