



March 13, 2020

Commonwealth of Virginia Department of Environmental Quality  
Northern Regional Office: Petroleum Remediation  
13901 Crown Court  
Woodbridge, Virginia 22193

Commonwealth of Virginia Department of Environmental Quality  
Office of Remediation Programs  
629 East Main Street  
Richmond, Virginia 23219

Attention: Mr. Alexander Wardle, Project Manager  
Mr. Vincent Maiden, Brownfields Program Coordinator

Subject: **February 2020 Corrective Action Plan Implementation Monitoring Report,**  
Former Robinson Terminal North Property, 500 and 501 North Union Street,  
Alexandria, Virginia

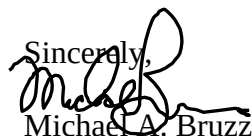
Reference: VDEQ PC No. 2016-3090  
VRP Site No. 00673  
A-Zone Project No. 6078.004

Dear Mr. Wardle and Mr. Maiden:

Attached for your review is the *February 2020 Corrective Action Plan Implementation Monitoring Report* (IMR) prepared by A-Zone Environmental Services, LLC (A-Zone) for the Former Robinson Terminal North property (herein referred to as the SITE) located at 500 and 501 North Union Street in Alexandria, Virginia. The IMR summarizes the February 2020 semi-annual groundwater sampling activities conducted by A-Zone at the SITE. The sampling activities were conducted to monitor groundwater quality at the SITE and satisfy a Commonwealth of Virginia Department of Environmental Quality directive dated May 13, 2019.

In general, the historical groundwater sampling results indicate concentrations of target constituents have decreased or remained relatively stable over the last several years (with little variations between time of year); thus, A-Zone believes that the monitoring frequency can be reduced from a semi-annual to annual basis and formerly requests this change to the monitoring frequency.

If you have any questions concerning the IMR, please feel free to contact me at (703) 608-5969.

Sincerely,  


Michael A. Bruzzesi, CPG  
Program Manager/Senior Geologist  
VA CPG No. 2801 001428



*Mr. Wardle*

*Mr Maiden  
March 13, 2020  
Page 2*

**Attachment**

**February 2020 Corrective Action Plan Implementation Monitoring Report**

cc: Mr. Greg Hoffman, Alexandria North Terminal, LLC  
Mr. Jim Thornhill, McGuire Woods, LLP  
Mr. William Skrabak, City of Alexandria

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# **FEBRUARY 2020 CORRECTIVE ACTION PLAN IMPLEMENTATION MONITORING REPORT**

**FORMER ROBINSON TERMINAL NORTH PROPERTY  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VIRGINIA**

**VDEQ VRP# 00673  
VDEQ PC# 2016-3090**

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***Prepared for:***

Commonwealth of Virginia Department of Environmental Quality  
Northern Regional Office: Petroleum Remediation  
13901 Crown Court  
Woodbridge, Virginia 22193  
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and  
Office of Remediation Programs  
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***On Behalf of:***

Alexandria North Terminal, LLC  
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3330 Washington Boulevard, Suite 220  
Arlington, Virginia 22201  
(571) 297-4833

***Prepared by:***

A-Zone Environmental Services, LLC  
2181 Berryville Pike  
Charles Town, West Virginia 25414  
(304) 724-6458

A-Zone Project No. 6078.04

**MARCH 13, 2020**

**SIGNATURE SHEET**

This February 2020 Corrective Action Plan Implementation Monitoring Report (IMR) for the Former Robinson Terminal North property located at 500 and 501 North Union Street in Alexandria, Virginia, was prepared by:



March 13, 2020

Craig Hebert, CPG      Date  
Project Manager/Senior Geologist

The IMR was reviewed and approved for release by:



March 13, 2020

Michael A. Bruzzesi, CPG      Date  
Program Manager/Senior Geologist  
VA CPG No. 2801 001428

## **TABLE OF CONTENTS**

|                                                |   |
|------------------------------------------------|---|
| SIGNATURE PAGE .....                           | i |
| 1.0 INTRODUCTION .....                         | 1 |
| 2.0 BACKGROUND .....                           | 2 |
| 3.0 SITE DESCRIPTION .....                     | 2 |
| 4.0 IMPLEMENTATION MONITORING ACTIVITIES ..... | 3 |
| 5.0 GROUNDWATER QUALITY .....                  | 4 |
| 6.0 DEVELOPMENT SCHEDULE UPDATE .....          | 7 |

### **FIGURES**

|           |                                                          |
|-----------|----------------------------------------------------------|
| Figure 1. | Site Location                                            |
| Figure 2. | Aerial Photograph                                        |
| Figure 3. | Site Plan (Existing Conditions)                          |
| Figure 4. | Well and Boring Location Map                             |
| Figure 5. | Groundwater Contour Map (7/11/19)                        |
| Figure 6. | TPH-GRO in Groundwater Isoconcentration Map (2/5/20)     |
| Figure 7. | TPH-DRO in Groundwater Isoconcentration Map (2/5/20)     |
| Figure 8. | Benzene in Groundwater Isoconcentration Map (2/5/20)     |
| Figure 9. | Naphthalene in Groundwater Isoconcentration Map (2/5/20) |

### **TABLES**

|          |                                                  |
|----------|--------------------------------------------------|
| Table 1. | Well Construction Information                    |
| Table 2. | Groundwater Measurements                         |
| Table 3. | Groundwater Parameter Readings at Stabilization  |
| Table 4. | Groundwater Analytical Results (Detections Only) |

### **ATTACHMENT**

|               |                               |
|---------------|-------------------------------|
| Attachment 1. | Laboratory Report of Analysis |
|---------------|-------------------------------|

## **LIST OF ACRONYMS AND ABBREVIATIONS**

|              |                                                                       |
|--------------|-----------------------------------------------------------------------|
| AlexRenew    | Alexandria Renew Enterprises                                          |
| ANT          | Alexandria North Terminal, LLC                                        |
| A-Zone       | A-Zone Environmental Services, LLC                                    |
| CAP          | Corrective Action Plan                                                |
| DO           | dissolved oxygen                                                      |
| EPA          | United States Environmental Protection Agency                         |
| IM           | Implementation Monitoring                                             |
| IMR          | Implementation Monitoring Report                                      |
| mg/l         | milligram per liter                                                   |
| ORP          | oxygen reduction potential                                            |
| PC#          | Pollution Compliant number                                            |
| PCE          | tetrachloroethene                                                     |
| PPL          | Priority Pollutant List                                               |
| PSCM         | Post-Site Characterization Monitoring                                 |
| PSTP         | Petroleum Storage Tank Program                                        |
| RL           | analytical method reporting limit                                     |
| SCR          | Site Characterization Report                                          |
| SCS          | Site Characterization Study                                           |
| SVOC         | semi-VOC                                                              |
| TCE          | trichloroethene                                                       |
| TCL          | Target Compound List                                                  |
| TPH          | total petroleum hydrocarbons                                          |
| TPH-DRO      | diesel range TPH                                                      |
| TPH-GRO      | gasoline range TPH                                                    |
| ug/l         | microgram per liter                                                   |
| UST          | underground storage tank                                              |
| VDEQ         | Commonwealth of Virginia Department of Environmental Quality          |
| VDEQ-PDS     | VDEQ general permit discharge standard for petroleum contaminated     |
| VDEQ-T2PWSSL | VDEQ Tier II public water supply screening level                      |
| VDEQ-T2SWFSL | VDEQ Tier II surface water fresh screening level                      |
| VDEQ-T3CDSL  | VDEQ Tier III construction direct (<15 feet) screening level          |
| VDEQ-T3IGSL  | VDEQ Tier III industrial groundwater vapor intrusion screening level  |
| VDEQ-T3RGSL  | VDEQ Tier III residential groundwater vapor intrusion screening level |
| VOC          | volatile organic compound                                             |
| VRP          | Voluntary Remediation Program                                         |
| WP           | Work Plan                                                             |

## 1.0 INTRODUCTION

This report summarizes the Corrective Action Plan Implementation Monitoring (IM) conducted by A-Zone Environmental Services, LLC (A-Zone) in February 2020 at the Former Robinson Terminal North property (herein referred to as the SITE) located at 500 and 501 North Union Street in Alexandria, Virginia. The IM activities were conducted on behalf of Alexandria North Terminal, LLC (ANT). IM activities included collection of groundwater samples from existing groundwater monitoring wells at the SITE for laboratory analysis. The sampling activities were conducted to monitor groundwater quality at the SITE and satisfy a Commonwealth of Virginia Department of Environmental Quality (VDEQ) directive dated May 13, 2019. The directive was associated with VDEQ Pollution Compliant number (PC#) 2016-3090, assigned to the SITE to address a suspect release of petroleum from past storage tanks.

When the SITE was assigned the PC#, the VDEQ mandated that a Site Characterization Study (SCS) be conducted to address the suspect release. The SITE was also entered into the VDEQ's Voluntary Remediation Program (VRP) in 2016 and was assigned VRP number 00673. The SITE was entered into the VRP to address non-petroleum impacts, which are not typically addressed through the VDEQ's Petroleum Storage Tank Program (PSTP). The SCS was completed in February 2017 and a *Site Characterization Report* (SCR) was submitted to the VDEQ in August 2017. The VDEQ accepted the findings of the SCS in September 2017. Based on their review of the SCS, the VDEQ mandated further groundwater monitoring as part of a Post-Site Characterization Monitoring (PSCM) program. Several new groundwater monitoring wells were installed, and groundwater samples were collected for laboratory analysis on two occasions as part of the program. The findings of each sampling event were reported to the VDEQ. Based on the findings of PSCM events, the VDEQ mandated that a *Corrective Action Plan* (CAP) be prepared for the SITE to address identified petroleum impacts to soil and groundwater. A CAP was submitted to the VDEQ in January 2019 and granted approval in May 2019. The CAP detailed corrective actions and engineering and institutional controls proposed to address the petroleum impacts. The SCS was conducted and the SCR and CAP were prepared to satisfy PSTP and VRP SCS and SCR and PSTP CAP requirements.

As part of the CAP approval, the VDEQ requested that semi-annual groundwater sampling of the groundwater monitoring well network be initiated in July 2019 and be continued every 6 months until the start of SITE development. The IM activities were conducted in conformance with a VDEQ-approved SCS Work Plan (WP) prepared by ICOR, Ltd. (dated April 1, 2016) and two PSCM events conducted in January and June 2018. The PSCM activities were conducted to further evaluate the type, degree, and extent of soil and groundwater impacts and to further evaluate general risks posed by the impacts to current and future site users. The findings of the SCS and follow-up PSCM were used to develop a remedial approach (in the form of a CAP) that allows for successful development of the SITE and minimization of risks to human health and the environment.

The history of the SITE and detailed discussion of the SCS activities and findings were provided in the SCR. The corrective actions and engineering and institutional controls proposed to address the identified impacts were presented in the CAP. This report details the findings of the February

2020 groundwater sampling event associated with IM. The report also includes an update concerning the development schedule.

In general, the historical groundwater sampling results indicate concentrations of target constituents have decreased or remained relatively stable over the last several years (with little variations between time of year); thus, A-Zone believes that the monitoring frequency can be reduced from a semi-annual to annual basis and formerly requests this change to the monitoring frequency.

## **2.0 BACKGROUND**

The SITE is located in a mixed commercial and residential land use area and is currently improved with two vacant warehouses, small shed, railroad spur, paved parking lots, dock (pier), and landscaping. The proposed development of the SITE has not been finalized but is anticipated to include construction of residential townhouses and will entail removal of most of the existing structures and features and mass grading and some excavation. A large stormwater infrastructure/utility project associated with Alexandria Renew Enterprises (AlexRenew) is also planned on the 501 North Union Street parcel. Based on the findings of past and recent environmental assessments, soil and groundwater beneath the SITE have been impacted by the past uses of the SITE, which included bulk oil storage, fertilizer storage, coal storage, chemical mixing and manufacturing, and warehouse operations. Contributions from adjacent and nearby properties that were used in the past for fertilizer storage, city gas works, chemical manufacturing and mixing, and bulk oil storage are also suspected. Constituents of concern identified at elevated concentrations in soil, groundwater, and soil gas at the SITE include gasoline and diesel range total petroleum hydrocarbons (TPH-GRO and TPH-DRO, respectively), volatile organic compounds (VOCs), semi-VOCs (SVOCs), and metals.

## **3.0 SITE DESCRIPTION**

The SITE is located at 500 and 501 North Union Street in Alexandria, Virginia, at the intersection of Oronoco Street and North Union Street. The SITE is comprised of two parcels, the 500 and 501 North Union Street parcels (herein referred to as the 500 and 501 Parcels, respectively), separated by North Union Street. The two parcels comprise approximately 3.2 acres of land. In past reports, the parcel addresses have also been listed as 1 and 101 Oronoco Street (corresponding to the 500 and 501 Parcels, respectively). A site location map is included as Figure 1. The SITE is situated in a mixed commercial and residential land use area. Adjacent property use is depicted on the aerial photograph included as Figure 2.

The SITE is currently improved with two 1-story, slab-on-grade brick, concrete, and steel warehouses, a large concrete dock (pier), railroad spur, a small wood-frame shed (near the dock), gravel and asphalt and concrete-paved parking areas, and landscaping. The warehouses were constructed in 1966. The warehouse situated on the 500 Parcel is referred to as Warehouse #16. The warehouse situated on the 501 Parcel is referred to as Warehouse #10, #11, and #12. Three diesel underground storage tanks (USTs) were formerly buried on the northeastern portion of the



501 Parcel. The USTs were formerly used to store and dispense diesel fuel via two dispensers located on the east-central portion of the 501 Parcel (next to the small wood shed). The tanks were removed in 2016. A site plan depicting existing conditions is included as Figure 3.

Topography at SITE is relatively flat. The SITE is bound to the north by Pendleton Street and railroad tracks across which is Oronoco Bay Park and Oronoco Bay, to the east and northeast by the Potomac River, to the south by Oronoco Street across which is Founders Park and a residential building, and to the west by Dalton Wharf Office Center. North Union Street separates the 500 and 501 North Union Street parcels.

#### **4.0 IMPLEMENTATION MONITORING ACTIVITIES**

The IM activities conducted at the SITE by A-Zone included collection of groundwater samples for laboratory analysis. The IM activities were conducted using the same methods and protocols established in the SCS WP and used during the two PSCM events conducted in January and June 2018 and first IM event conducted in July 2019. Sampling was conducted under the supervision of a Commonwealth of Virginia Certified Professional Geologist.

Groundwater samples were collected for laboratory analysis from existing wells TEC-MW2, TEC-MW4, ECS-MW4, MiHpt-5, MiHpt-7, MiHpt-8, MiHpt-14, MiHpt-15, MiHpt-20, MiHpt-21, MiHpt-22, MW23, MW24, and MW25. Well construction information for all existing wells is provided on Table 1.

Sampling was performed using a peristaltic pump fitted with new, dedicated, and disposable high-density polyethylene tubing. Before sampling each well, the depth to petroleum free product, if any, and groundwater was measured to the nearest 0.01 foot from the well's top of casing using an oil/water interface probe. The well measurements recorded before sampling the wells are summarized on Table 2. The sample tubing inlet was placed at a depth corresponding to the center of each monitoring well's submerged screen interval. The samples were collected at a low flow rate (less than 250 milliliters per minute) to minimize agitation and aeration. Sampling was conducted in accordance with low-flow purging and sampling protocols recommended by the United States Environmental protection Agency (EPA).

The groundwater samples were collected after field parameters stabilized during purging. The following field parameters were monitored during purging: temperature, pH, specific conductivity, dissolved oxygen (DO), oxygen reduction potential (ORP), and turbidity. All of these parameters were measured using a multi-meter and low volume flow cell. Purging was considered complete when temperature, pH, specific conductivity, DO, ORP, and turbidity readings (an acceptable EPA, subset of parameters) stabilized for a minimum of three consecutive readings. It should be noted that well TEC-MW2 went dry during sampling. Samples were collected from the well that went dry after it was allowed to recharge. Field parameter readings recorded at stabilization are summarized on Table 3.

The samples were transferred to appropriate sample containers directly from the discharge tubing and were grab samples. The groundwater samples were analyzed for TPH-GRO and TPH-DRO

using EPA Method 8015C, Target Compound List (TCL) VOCs using EPA Method 8260B, and TCL SVOCs using EPA Method 8270C.

All purge water generated during sampling was stored in a 55-gallon drum pending proper disposal.

## 5.0 GROUNDWATER QUALITY

Based on the recent and historical groundwater measurements obtained from monitoring wells, the depth to groundwater at the SITE ranges from approximately 3 to 9 feet below grade and groundwater flow is to the north-northeast towards Oronoco Bay and the Potomac River. Oronoco Bay and the Potomac River are tidally influenced; however, historical data collected to date does not suggest that tidal change has a significant effect of groundwater flow beneath the SITE. It should be noted that AlexRenew is currently conducting a long-term tidal influence study and the effect of tidal change of groundwater levels will be reevaluated at the conclusion of their study. Recent and historical groundwater measurements obtained from the site wells are summarized on Table 2. A groundwater contour map generated from the recent groundwater sampling event is included as Figure 5.

Petroleum odors were noted during collection of groundwater samples from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-15, MiHpt-20, MiHpt-21, and MiHpt-22. A petroleum sheen was also observed during collection of the groundwater sample from well MiHpt-21. The groundwater samples were analyzed for TPH-GRO, TPH-DRO, TCL VOCs, and TCL SVOCs. The recent and historical groundwater analytical results for target constituents required for monitoring by the PSTP are summarized on Table 4. A copy of the laboratory report of analysis is included in Attachment 1.

The groundwater analytical results were compared to the most-current VDEQ Tier III residential groundwater vapor intrusion screening level (VDEQ-T3RGSLs), VDEQ Tier III industrial groundwater vapor intrusion screening level (VDEQ-T3IGSLs), and VDEQ Tier III construction direct (<15 feet) screening level (VDEQ-T3CDSLs). The analytical results were also compared to surface water screening levels including VDEQ general permit discharge standards for petroleum contaminated water (VDEQ-PDSs), VDEQ Tier II public water supply screening level (VDEQ-T2PWSSLs), and VDEQ Tier II surface water fresh screening level (VDEQ-T2SWFSLs). It should be noted that VDEQ groundwater and surface water screening levels have not been developed for many of the target constituents detected.

TPH-GRO, TPH-DRO, 17 VOCs, and 22 SVOCs were detected in the groundwater samples at concentrations above the RL. Ten VOCs and five SVOCs were detected at concentrations above VDEQ groundwater and/or surface water screening levels. A list of the constituents detected above screening levels is detailed below.

### ***Constituents Detected Above VDEQ-T3RGSLs***

- **Benzene** was detected above VDEQ-T3RGSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-21, MiHpt-22, and MW-25.

- **Biphenyl** was detected above VDEQ-T3RGSLs in the groundwater samples collected from wells MiHpt-7 and MiHpt-14.
- **Bis(2-ethylhexyl)phthalate (BEHP)** was detected above VDEQ-T3RGSLs in the groundwater sample collected from well TEC-MW2.
- **Chloroform** was detected above VDEQ-T3RGSLs in the groundwater sample collected from well MiHpt-14.
- **Cyclohexane** was detected above VDEQ-T3RGSLs in the groundwater sample collected from well MiHpt-21.
- **Ethylbenzene** was detected above VDEQ-T3RGSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, and MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-T3RGSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, and MW-25.
- **Tetrachloroethene (PCE)** was detected above VDEQ-T3RGSLs in the groundwater sample collected from well MiHpt-21.
- **Trichloroethene (TCE)** was detected above VDEQ-T3RGSLs in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-T3RGSLs in the groundwater samples collected from wells MiHpt-7 and MiHpt-21.

#### ***Constituents Detected Above VDEQ-T3IGSLs***

- **Benzene** was detected above VDEQ-TRIGSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, and MiHpt-21.
- **BEHP** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well TEC-MW2.
- **Cyclohexane** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-TRIGSLs in the groundwater samples collected from wells MiHpt-5 and MiHpt-7.
- **PCE** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.

#### ***Constituents Detected Above VDEQ-T3CDSLs***

- **Benzene** was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-21, MiHpt-22, and MW-25.
- **Biphenyl** was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, and MW-25.
- **Isopropylbenzene** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-7.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-8, MiHpt-14, MiHpt-15, MiHpt-21, and MW-25.

- **Pentachlorophenol** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **PCE** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, and MiHpt-21.

#### ***Constituents Detected Above VDEQ-PDSs***

- **Benzene** was detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-21, MiHpt-22, and MW-25.
- **Ethylbenzene** was detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, and MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-8, MiHpt-14, and MW-25.
- **PCE** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **Toluene** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, and MiHpt-21.

#### ***Constituents Detected Above VDEQ-T2PWSSLs***

- **Benzene** was detected above VDEQ-T2PWSSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-21, MiHpt-22, and MW-25.
- **Benzo(a)anthracene** was detected above VDEQ-T2PWSSLs in the groundwater samples collected from wells MiHpt-14 and MW-24.
- **2,4-Dichlorophenol** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **Pentachlorophenol** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **PCE** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.

#### ***Constituents Detected Above VDEQ-T2SWFSLs***

- **Benzo(a)anthracene** was detected above VDEQ-T2SWFSLs in the groundwater samples collected from wells MiHpt-14 and MW-24.

- **PCE** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.
- **2,4-Dichlorophenol** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.
- **Pentachlorophenol** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.

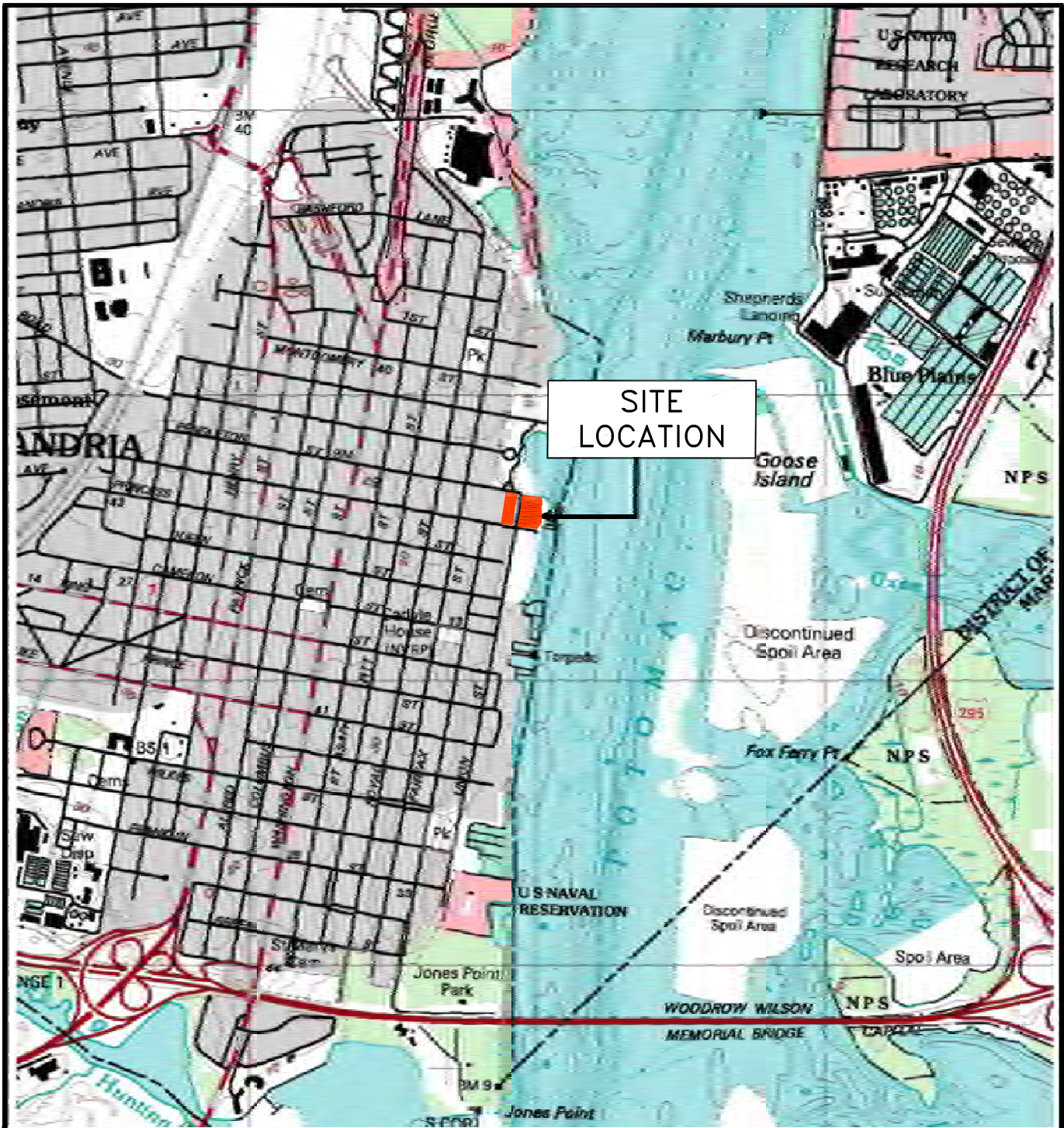
In general, the concentrations of TPH-GRO, TPH-DRO, VOCs, and SVOCs detected in groundwater appear to be decreasing or be relatively stable over time. The highest concentrations of target constituents detected were on the western and southern portions of the SITE. Isoconcentration maps prepared from the recent groundwater analytical data for TPH-GRO, TPH-DRO, benzene, and naphthalene are included as Figures 6 through 9.

Based on the decreasing or relatively stable trend of concentrations of target constituents detected at the SITE over the last several years (with little variations between time of year), A-Zone believes that the monitoring frequency can be reduced from semi-annual to annual basis.

## **6.0 DEVELOPMENT SCHEDULE UPDATE**

The potential development schedule is not yet set and will depend on approvals and the completion of the AlexRenew project anticipated to be completed from 2021-2025.

# FIGURES



REFERENCE:  
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE  
ALEXANDRIA, VIRGINIA  
PHOTOREVISED 1994 SCALE 1:24,000



## SITE LOCATION

|                   |               |
|-------------------|---------------|
| DESIGNED BRUZZESI | DATE 04/04/17 |
| DRAWN CONNELLY    | DATE 04/04/17 |



**A-ZONE**  
ENVIRONMENTAL SERVICES

2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

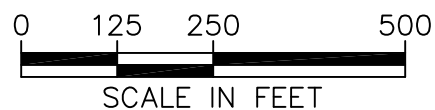
FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

|                     |                 |
|---------------------|-----------------|
| PROJECT NO. 6048.04 | SCALE: AS SHOWN |
| DRAWING NO.         | FIGURE 1        |





MICROSOFT CORPORATION 2016



## AERIAL PHOTOGRAPH

|                   |               |
|-------------------|---------------|
| DESIGNED BRUZZESI | DATE 04/04/17 |
| DRAWN CONNELLY    | DATE 04/04/17 |

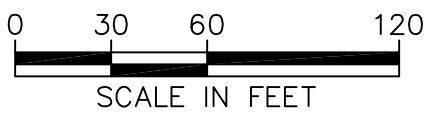
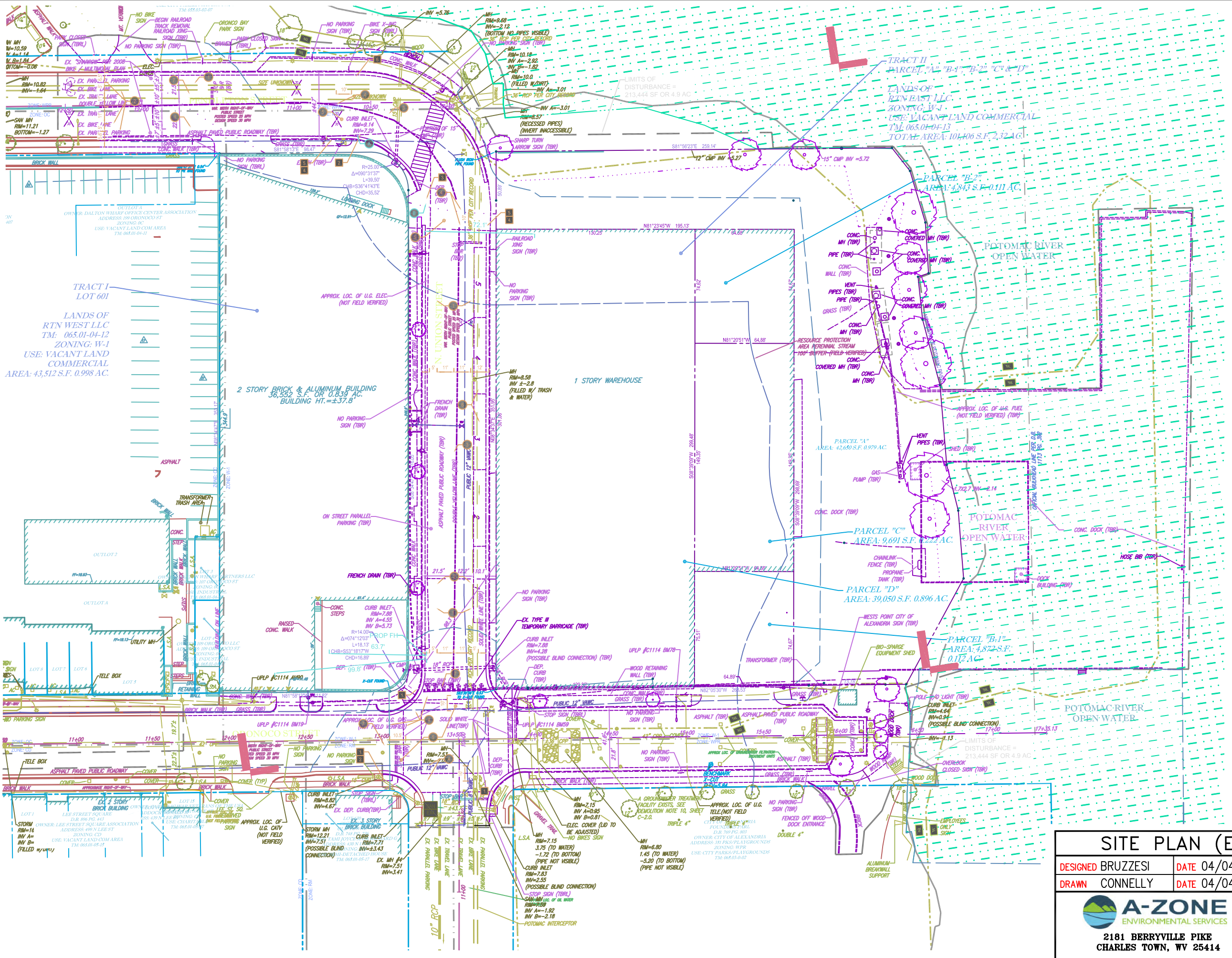


2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

|                     |                 |
|---------------------|-----------------|
| PROJECT NO. 6078.04 | SCALE: AS SHOWN |
| DRAWING NO.         | FIGURE 2        |





| SITE PLAN (EXISTING CONDITIONS)                                                       |          |                                                                                    |                 |
|---------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------|-----------------|
| DESIGNED                                                                              | BRUZZESI | DATE                                                                               | 04/04/17        |
| DRAWN                                                                                 | CONNELLY | DATE                                                                               | 04/04/17        |
|  |          | FORMER ROBINSON TERMINAL NORTH<br>500 AND 501 NORTH UNION STREET<br>ALEXANDRIA, VA |                 |
| 2181 BERRYVILLE PIKE<br>CHARLES TOWN, WV 25414                                        |          | PROJECT NO. 6078.04                                                                | SCALE: AS SHOWN |
|                                                                                       |          | DRAWING NO.                                                                        | FIGURE 3        |

6078-04-RTN\_SCR03-EXIST\_SITE.DWG - July 6, 2016



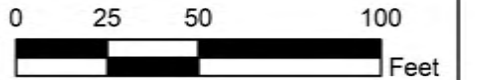




## Legend

-  Site Property
-  Groundwater Monitoring Well
-  Groundwater Contours (2/2020)
-  Groundwater Flow Direction

Notes:  
DRY - Well was dry.



## GROUNDWATER CONTOUR MAP (02/05/20)

DESIGNED BRUZZESI  
DRAWN CONNELLY

DATE 07/28/19  
DATE 07/28/19

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA



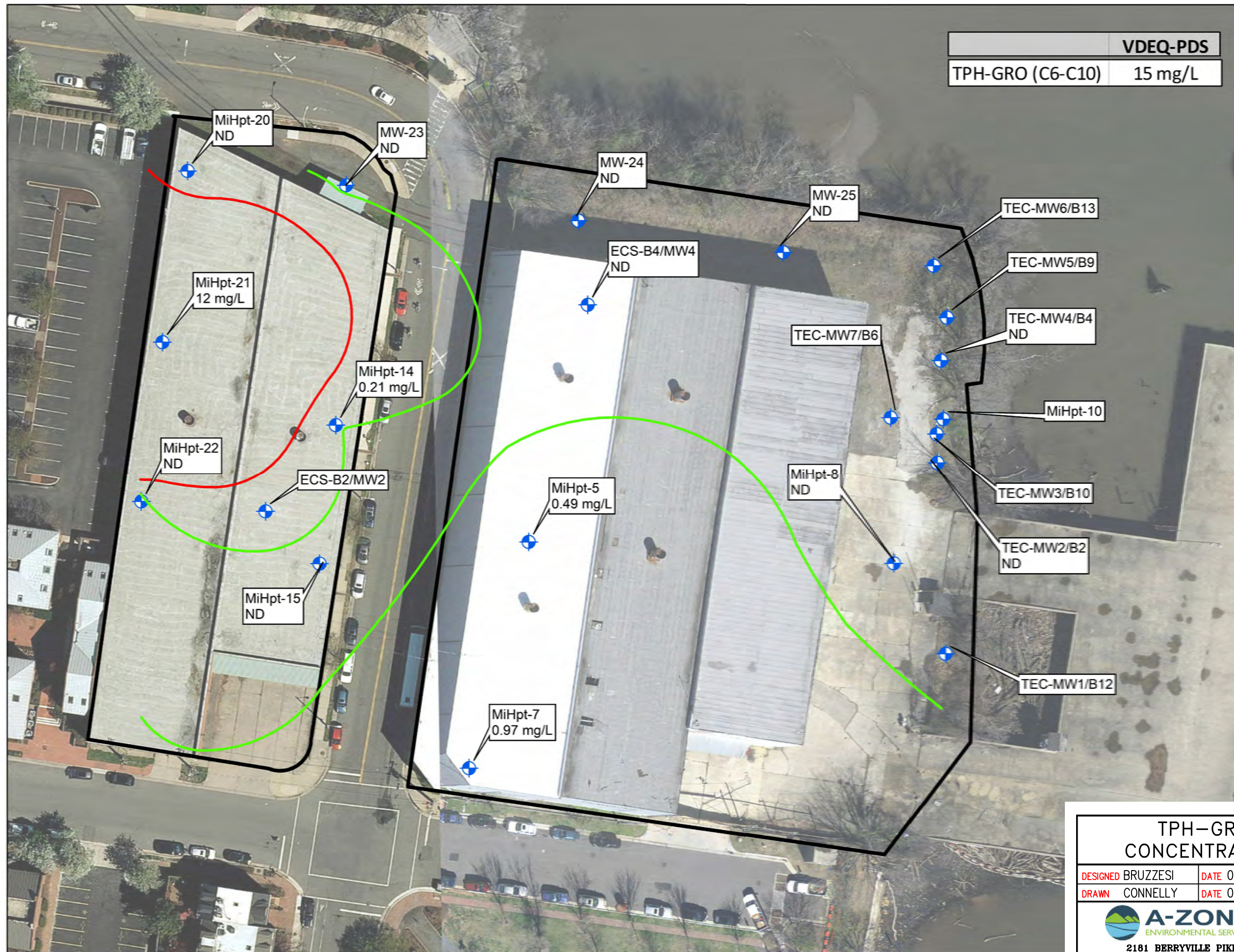
2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

PROJECT NO. 6078.04  
DRAWING NO.

SCALE: AS SHOWN  
FIGURE 5



6078-04-RTN SCR06-TPHGRO GW CONC.DWG - July 6, 2016



### TPH-GRO IN GROUNDWATER CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI DATE 07/28/19  
DRAWN CONNELLY DATE 07/28/19



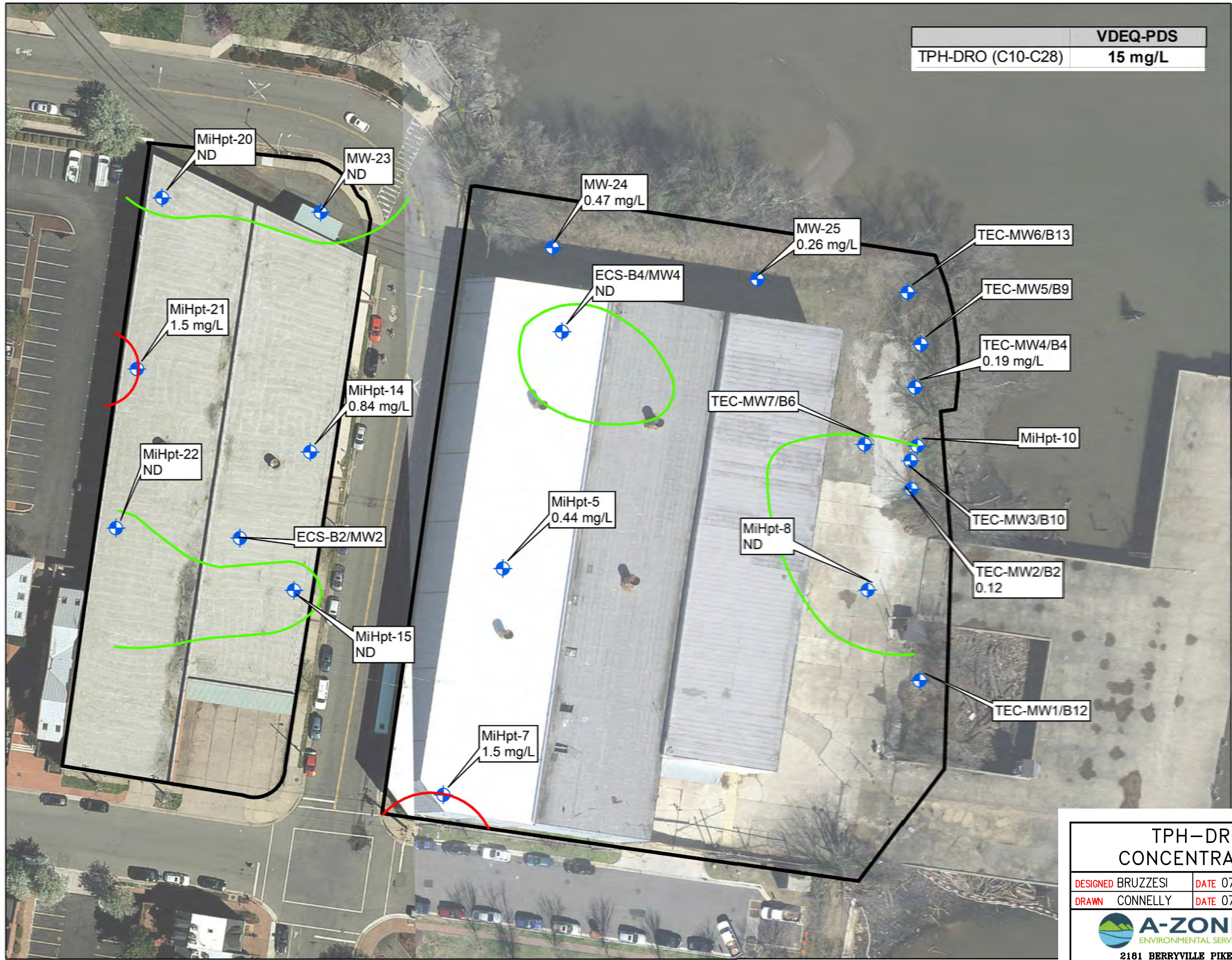
2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

PROJECT NO. 6078.04 SCALE: AS SHOWN  
DRAWING NO. FIGURE 6



6078-04-RTN SCR07-TPHDRO GW CONC.DWG - July 6, 2016



| TPH-DRO (C10-C28) | VDEQ-PDS |
|-------------------|----------|
|                   | 15 mg/L  |



Legend

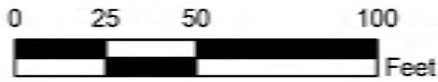
- Site Property
- Groundwater Monitoring Well

Isoconcentration (TPH-DRO)

- 0.15 mg/L
- 1.5 mg/L

Sample ID  
TPH-DRO Concentration (mg/L)

Notes:  
ND - Non-Detect  
VDEQ-PDS = general permit  
discharge standard for petroleum  
contaminated water



TPH-DRO IN GROUNDWATER  
CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI DATE 07/28/19  
DRAWN CONNELLY DATE 07/28/19



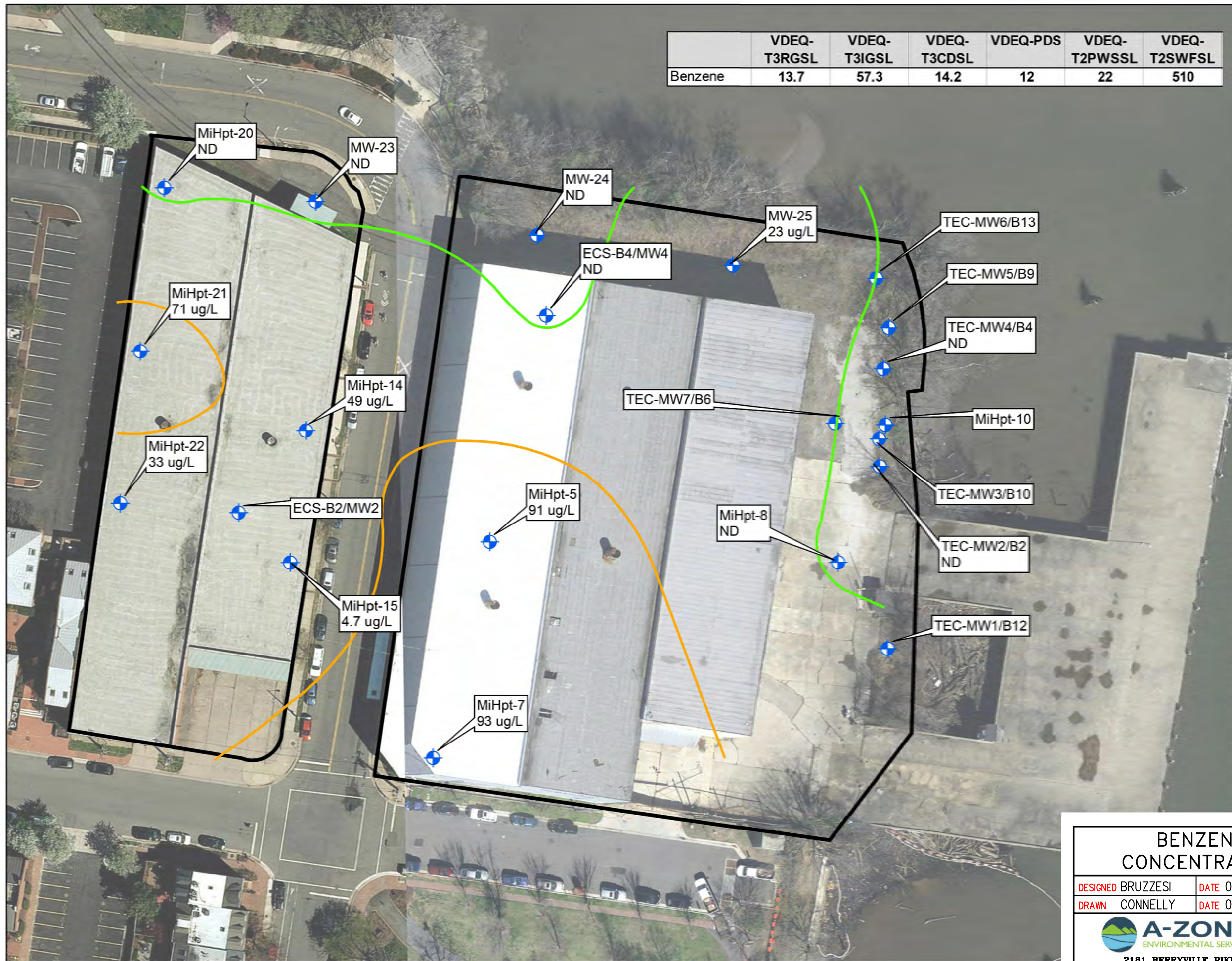
2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

PROJECT NO. 6078.04 SCALE: AS SHOWN  
DRAWING NO. FIGURE 7



6078-04-RTN SCR08-BENZ GW CONC.DWG - July 6, 2016

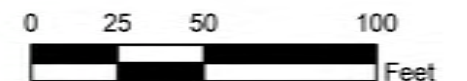


|         | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL |
|---------|-------------|-------------|-------------|----------|--------------|--------------|
| Benzene | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          |

### Legend

- Site Property
- Groundwater Monitoring Well
- Isoconcentration (Benzene)
  - 5 ug/L
  - 50 ug/L
- Sample ID  
Benzene Concentration (ug/L)

Notes:  
ND - Non-Detect  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level



## BENZENE IN GROUNDWATER CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI DATE 07/28/19  
DRAWN CONNELLY DATE 07/28/19



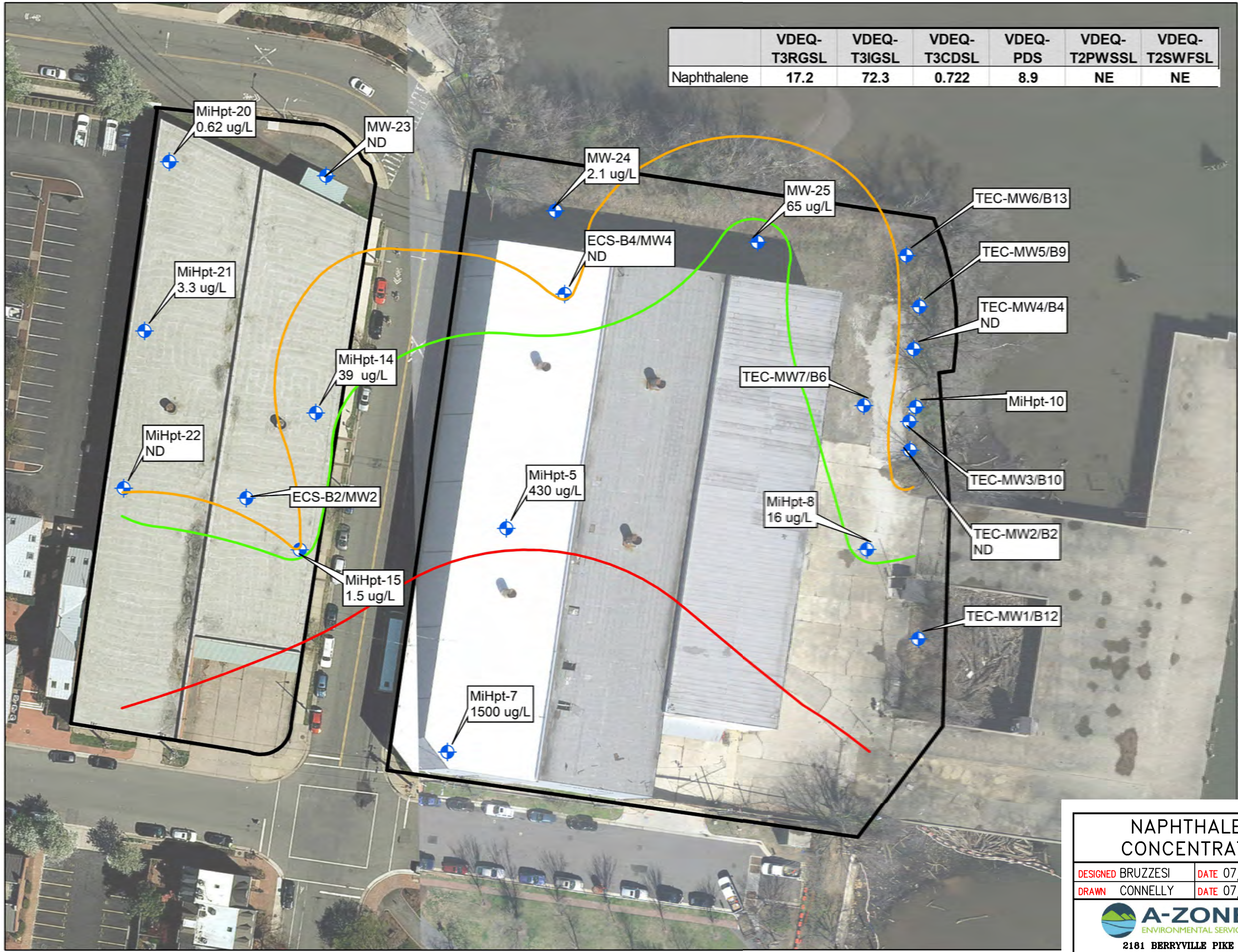
2181 BERRYVILLE PIKE  
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

PROJECT NO. 6078.04 SCALE: AS SHOWN  
DRAWING NO. FIGURE 8



6078-04-RTN SCR09-NAPTH GW CONC.DWG - July 6, 2016



|             | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL |
|-------------|-------------|-------------|-------------|----------|--------------|--------------|
| Naphthalene | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           |

N

Site Property

Groundwater Monitoring Well

Isoconcentration (Naphthalene)

5 ug/L

50 ug/L

500 ug/L

Sample ID

Naphthalene Concentration (ug/L)

Notes:  
ND - Non-Detect  
NE - Non-Established  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level

0

25

50

100

Feet

NAPHTHALENE IN GROUNDWATER CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI

DATE 07/28/19

DRAWN CONNELLY

DATE 07/28/19

A-ZONE

ENVIRONMENTAL SERVICES

2181 BERRYVILLE PIKE

CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH

500 AND 501 NORTH UNION STREET

ALEXANDRIA, VA

PROJECT NO. 6078.04

SCALE: AS SHOWN

DRAWING NO.

FIGURE 9



# TABLES



**TABLE 1. WELL CONSTRUCTION INFORMATION**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID  | Date Installed | Well Diameter<br>(inches ID) | Well Material | Total Depth<br>(feet bgs) | Screen Interval<br>(feet bgs) |
|----------|----------------|------------------------------|---------------|---------------------------|-------------------------------|
| TEC-MW1  | 4/27/06        | 1                            | PVC           | 10.0                      | UKN                           |
| TEC-MW2  | 4/27/06        | 1                            | PVC           | 16.0                      | UKN                           |
| TEC-MW3  | UKN            | 1                            | PVC           | UKN                       | UKN                           |
| TEC-MW4  | 4/27/06        | 1                            | PVC           | 12.0                      | UKN                           |
| TEC-MW5  | 4/27/06        | 1                            | PVC           | 16.0                      | UKN                           |
| TEC-MW6  | 4/28/06        | 1                            | PVC           | 16.0                      | UKN                           |
| TEC-MW7  | 4/27/06        | 1                            | PVC           | 12.0                      | UKN                           |
| ECS-MW2  | 12/20/07       | 1                            | PVC           | UKN                       | UKN                           |
| ECS-MW4  | 12/27/07       | 1                            | PVC           | UKN                       | UKN                           |
| MiHpt-5  | 9/7/16         | 1                            | PVC           | 16.0                      | 6.0 - 16.0                    |
| MiHpt-7  | 9/6/16         | 1                            | PVC           | 17.0                      | 7.0 - 17.0                    |
| MiHpt-8  | 9/6/16         | 1                            | PVC           | 20.0                      | 10.0 - 20.0                   |
| MiHpt-14 | 9/8/16         | 1                            | PVC           | 16.0                      | 6.0 - 16.0                    |
| MiHpt-15 | 9/8/16         | 1                            | PVC           | 16.0                      | 6.0 - 16.0                    |
| MiHpt-20 | 9/8/16         | 1                            | PVC           | 18.0                      | 8.0 - 18.0                    |
| MiHpt-21 | 9/9/16         | 1                            | PVC           | 16.0                      | 6.0 - 16.0                    |
| MiHpt-22 | 9/9/16         | 1                            | PVC           | 16.0                      | 6.0 - 16.0                    |
| MW23     | 1/22/18        | 1                            | PVC           | 19.8                      | 4.8 - 19.8                    |
| MW24     | 1/22/18        | 1                            | PVC           | 19.0                      | 4.0 - 19.0                    |
| MW25     | 1/22/18        | 1                            | PVC           | 19.0                      | 4.0 - 19.0                    |

**NOTES:**

ID = inner diameter

bgs = below surface grade

UKN = unknown

**TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID | Well TOC<br>Elevation<br>(feet) | Date     | Total Well<br>Depth<br>(feet bgs) | Depth to<br>Groundwater<br>(feet bgs) | Groundwater<br>Elevation<br>(feet) |
|---------|---------------------------------|----------|-----------------------------------|---------------------------------------|------------------------------------|
| TEC-MW1 | 7.92                            | 5/4/06   | 10.0                              | 5.64                                  | 2.28                               |
| TEC-MW2 | 9.26                            | 5/4/06   | 16.0                              | 6.79                                  | 2.47                               |
|         |                                 | 9/21/16  |                                   | 6.74                                  | 2.52                               |
|         |                                 | 2/7/17   |                                   | 7.21                                  | 2.05                               |
|         |                                 | 1/29/18  |                                   | 7.81                                  | 1.45                               |
|         |                                 | 6/7/18   |                                   | 6.32                                  | 2.94                               |
|         |                                 | 7/11/19  |                                   | 6.33                                  | 2.93                               |
|         |                                 | 2/5/20   |                                   | 7.01                                  | 2.25                               |
| TEC-MW3 | 9.47                            | 5/4/06   | UKN                               | 7.00                                  | 2.47                               |
|         |                                 | 9/21/16  |                                   | 7.22                                  | 2.25                               |
|         |                                 | 2/7/17   |                                   | 7.44                                  | 2.03                               |
|         |                                 | 1/29/18  |                                   | OBS                                   | OBS                                |
|         |                                 | 6/7/18   |                                   | 6.39                                  | 3.08                               |
|         |                                 | 2/5/20   |                                   | 7.15                                  | 2.32                               |
| TEC-MW4 | 9.51                            | 5/4/06   | 12.0                              | 7.05                                  | 2.46                               |
|         |                                 | 9/21/16  |                                   | 7.23                                  | 2.28                               |
|         |                                 | 2/7/17   |                                   | 7.50                                  | 2.01                               |
|         |                                 | 1/29/18  |                                   | 8.12                                  | 1.39                               |
|         |                                 | 6/7/18   |                                   | 6.45                                  | 3.06                               |
|         |                                 | 7/11/19  |                                   | 6.45                                  | 3.06                               |
|         |                                 | 2/5/20   |                                   | 7.27                                  | 2.24                               |
| TEC-MW5 | 8.02                            | 5/4/06   | 16.0                              | 7.89                                  | 0.13                               |
|         |                                 | 9/21/16  |                                   | 7.58                                  | 0.44                               |
|         |                                 | 2/7/17   |                                   | 6.83                                  | 1.19                               |
|         |                                 | 1/29/18  |                                   | 6.31                                  | 1.71                               |
| TEC-MW6 | 7.52                            | 5/4/06   | 16.0                              | 6.40                                  | 1.12                               |
| TEC-MW7 | 8.70                            | 5/4/06   | 12.0                              | 6.49                                  | 2.21                               |
| ECS-MW2 | 11.48                           | 12/20/07 | UKN                               | 10.08                                 | 1.40                               |
|         |                                 | 9/21/16  |                                   | 6.97                                  | 4.51                               |
|         |                                 | 2/7/17   |                                   | 6.53                                  | 4.95                               |
|         |                                 | 1/29/18  |                                   | DRY                                   | DRY                                |
|         |                                 | 6/7/18   |                                   | DRY                                   | DRY                                |
|         |                                 | 7/11/19  |                                   | DRY                                   | DRY                                |
|         |                                 | 2/5/20   |                                   | DRY                                   | DRY                                |
| ECS-MW4 | 8.76                            | 12/20/07 | UKN                               | 9.15                                  | -0.39                              |
|         |                                 | 9/21/16  |                                   | 2.98                                  | 5.78                               |
|         |                                 | 2/7/17   |                                   | 3.38                                  | 5.38                               |



**TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID  | Well TOC<br>Elevation<br>(feet) | Date    | Total Well<br>Depth<br>(feet bgs) | Depth to<br>Groundwater<br>(feet bgs) | Groundwater<br>Elevation<br>(feet) |
|----------|---------------------------------|---------|-----------------------------------|---------------------------------------|------------------------------------|
|          |                                 | 1/29/18 |                                   | 4.65                                  | 4.11                               |
|          |                                 | 6/7/18  |                                   | 2.73                                  | 6.03                               |
|          |                                 | 7/11/19 |                                   | 1.90                                  | 6.86                               |
|          |                                 | 2/5/20  |                                   | 3.11                                  | 5.65                               |
| MiHpt-5  | 8.82                            | 9/21/16 | 16.0                              | 5.37                                  | 3.45                               |
|          |                                 | 2/7/17  |                                   | 6.62                                  | 2.20                               |
|          |                                 | 1/29/18 |                                   | 6.31                                  | 2.51                               |
|          |                                 | 6/7/18  |                                   | 4.52                                  | 4.30                               |
|          |                                 | 7/11/19 |                                   | 4.22                                  | 4.60                               |
|          |                                 |         |                                   | 5.22                                  | 3.60                               |
| MiHpt-7  | 8.97                            | 9/21/16 | 17.0                              | 5.18                                  | 3.79                               |
|          |                                 | 2/7/17  |                                   | 5.07                                  | 3.90                               |
|          |                                 | 1/29/17 |                                   | 6.11                                  | 2.86                               |
|          |                                 | 6/7/18  |                                   | 4.50                                  | 4.47                               |
|          |                                 | 7/11/19 |                                   | 4.17                                  | 4.80                               |
|          |                                 | 2/5/20  |                                   | 5.28                                  | 3.69                               |
| MiHpt-8  | 8.21                            | 9/21/16 | 20.0                              | 5.99                                  | 2.22                               |
|          |                                 | 2/7/17  |                                   | 6.19                                  | 2.02                               |
|          |                                 | 1/29/18 |                                   | 6.16                                  | 2.05                               |
|          |                                 | 6/7/18  |                                   | 5.13                                  | 3.08                               |
|          |                                 | 7/11/19 |                                   | 5.16                                  | 3.05                               |
|          |                                 | 2/5/20  |                                   | 5.96                                  | 2.25                               |
| MiHpt-14 | 11.48                           | 9/21/16 | 16.0                              | 7.90                                  | 3.58                               |
|          |                                 | 2/7/17  |                                   | 7.62                                  | 3.86                               |
|          |                                 | 1/29/18 |                                   | 8.95                                  | 2.53                               |
|          |                                 | 6/7/18  |                                   | 7.39                                  | 4.09                               |
|          |                                 | 7/11/19 |                                   | 6.97                                  | 4.51                               |
|          |                                 | 2/5/20  |                                   | 7.81                                  | 3.67                               |
| MiHpt-15 | 11.54                           | 9/21/16 | 16.0                              | 7.22                                  | 4.32                               |
|          |                                 | 2/7/17  |                                   | 6.59                                  | 4.95                               |
|          |                                 | 1/29/17 |                                   | 8.11                                  | 3.43                               |
|          |                                 | 6/7/18  |                                   | 6.58                                  | 4.96                               |
|          |                                 | 7/11/19 |                                   | 6.21                                  | 5.33                               |
|          |                                 | 2/5/20  |                                   | 6.78                                  | 4.76                               |
| MiHpt-20 | 11.59                           | 9/21/16 | 18.0                              | 9.41                                  | 2.18                               |
|          |                                 | 2/7/17  |                                   | 9.50                                  | 2.09                               |
|          |                                 | 1/29/18 |                                   | 10.57                                 | 1.02                               |

**TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID  | Well TOC<br>Elevation<br>(feet) | Date    | Total Well<br>Depth<br>(feet bgs) | Depth to<br>Groundwater<br>(feet bgs) | Groundwater<br>Elevation<br>(feet) |
|----------|---------------------------------|---------|-----------------------------------|---------------------------------------|------------------------------------|
|          |                                 | 6/7/18  |                                   | 8.14                                  | 3.45                               |
|          |                                 | 7/11/19 |                                   | 8.91                                  | 2.68                               |
|          |                                 | 2/5/20  |                                   | 9.10                                  | 2.49                               |
| MiHpt-21 | 11.56                           | 9/21/16 | 16.0                              | 7.19                                  | 4.37                               |
|          |                                 | 2/7/17  |                                   | 6.99                                  | 4.57                               |
|          |                                 | 1/29/18 |                                   | 11.05                                 | 0.51                               |
|          |                                 | 6/7/18  |                                   | 6.70                                  | 4.86                               |
|          |                                 | 7/11/19 |                                   | 5.84                                  | 5.72                               |
|          |                                 | 2/5/20  |                                   | 6.80                                  | 4.76                               |
| MiHpt-22 | 11.63                           | 9/21/16 | 16.0                              | 7.30                                  | 4.33                               |
|          |                                 | 2/7/17  |                                   | 6.99                                  | 4.64                               |
|          |                                 | 1/29/18 |                                   | 8.10                                  | 3.53                               |
|          |                                 | 6/7/18  |                                   | 6.57                                  | 5.06                               |
|          |                                 | 7/11/19 |                                   | 8.94                                  | 2.69                               |
|          |                                 | 2/5/20  |                                   | 6.65                                  | 4.98                               |
| MW23     | 9.12                            | 1/29/18 | 19.8                              | 8.27                                  | 0.85                               |
|          |                                 | 6/7/18  |                                   | 6.43                                  | 2.69                               |
|          |                                 | 7/11/19 |                                   | 6.42                                  | 2.70                               |
|          |                                 | 2/5/20  |                                   | 7.45                                  | 1.67                               |
| MW24     | 8.62                            | 1/29/18 | 19.0                              | 7.61                                  | 1.01                               |
|          |                                 | 6/7/18  |                                   | 5.79                                  | 2.83                               |
|          |                                 | 7/11/19 |                                   | 5.32                                  | 3.30                               |
|          |                                 | 2/5/20  |                                   | 6.07                                  | 2.55                               |
| MW25     | 7.73                            | 1/29/18 | 19.0                              | 6.49                                  | 1.24                               |
|          |                                 | 6/7/18  |                                   | 4.85                                  | 2.88                               |
|          |                                 | 7/11/19 |                                   | 4.74                                  | 2.99                               |
|          |                                 | 2/5/20  |                                   | 5.52                                  | 2.21                               |

**NOTES:**

All survey data generated by a professional surveyor

TOC = top of casing

bgs = below ground surface

UKN = unknown

OBS = obstructed

DRY = well dry



**TABLE 3. GROUNDWATER PARAMETER READINGS AT STABLIZATION**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID  | Date Measurement Collected | Time to Stabilization (minutes) | Temperature (°C) | Specific Conductance (mS/cm) | pH   | Oxygen Reduction Potential (mv) | Dissolved Oxygen (mg/l) | Turbidity (NTU) |
|----------|----------------------------|---------------------------------|------------------|------------------------------|------|---------------------------------|-------------------------|-----------------|
| TEC-MW2  | 1/29/18                    | 10/DRY                          | 12.68            | 0.413                        | 6.80 | -145                            | 8.5                     | 113.0           |
|          | 6/7/18                     | 15/DRY                          | 16.32            | 1.010                        | 6.67 | -70                             | 1.0                     | 22.0            |
|          | 7/11/19                    | 15/DRY                          | 21.24            | 1.690                        | 6.57 | -71                             | 1.5                     | 122.0           |
|          | 2/5/20                     | 15/DRY                          | 12.88            | 1.760                        | 6.88 | -60                             | 2.5                     | 308.0           |
| TEC-MW4  | 1/29/18                    | 35                              | 14.00            | 0.888                        | 6.81 | -109                            | 0.0                     | 3.3             |
|          | 6/7/18                     | 30                              | 15.43            | 0.722                        | 6.67 | -67                             | 0.0                     | 11.0            |
|          | 7/11/19                    | 30                              | 17.99            | 1.290                        | 7.37 | -123                            | 0.0                     | 0.0             |
|          | 2/5/20                     | 30                              | 12.48            | 1.300                        | 6.99 | -109                            | 0.0                     | 6.2             |
| ECS-MW4  | 1/29/18                    | 35                              | 15.74            | 0.485                        | 6.60 | -92                             | 0.0                     | 10.3            |
|          | 6/7/18                     | 30                              | 17.43            | 0.565                        | 6.72 | -145                            | 0.0                     | 4.7             |
|          | 7/11/19                    | 25                              | 18.08            | 0.671                        | 6.95 | -130                            | 0.0                     | 15.5            |
|          | 2/5/20                     | 35                              | 15.01            | 0.551                        | 6.81 | -82                             | 0.8                     | 5.6             |
| MiHpt-5  | 1/29/18                    | 35                              | 14.18            | 0.843                        | 2.37 | 351                             | 4.8                     | 410.0           |
|          | 6/7/18                     | 30                              | 15.55            | 0.779                        | 2.66 | 322                             | 0.0                     | 0.0             |
|          | 7/11/19                    | 25                              | 18.33            | 0.939                        | 2.98 | 297                             | 0.0                     | 20.0            |
|          | 2/5/20                     | 30                              | 13.43            | 4.50 (mulfuction)            | 2.79 | 373                             | 0.0                     | 98.0            |
| MiHpt-7  | 1/29/18                    | 35                              | 15.69            | 0.469                        | 6.81 | -116                            | 0.0                     | 15.5            |
|          | 6/7/18                     | 25                              | 16.70            | 0.486                        | 6.76 | -138                            | 0.0                     | 9.0             |
|          | 7/11/19                    | 25                              | 18.34            | 0.598                        | 7.24 | -161                            | 0.0                     | 0.0             |
|          | 2/5/20                     | 25                              | 14.32            | 0.476                        | 6.67 | -81                             | 0.0                     | 56.7            |
| MiHpt-8  | 1/29/18                    | 40                              | 12.01            | 1.870                        | 7.08 | -245                            | 7.5                     | 3.5             |
|          | 6/7/18                     | 40                              | 18.07            | 1.120                        | 6.67 | -419                            | 0.0                     | 9.2             |
|          | 7/11/19                    | 25                              | 23.61            | 1.760                        | 6.94 | -339                            | 0.0                     | 34.9            |
|          | 2/5/20                     | 35                              | 15.34            | 1.720                        | 6.84 | -322                            | 5.4                     | 13.0            |
| MiHpt-14 | 1/29/18                    | 35                              | 15.83            | 1.330                        | 5.81 | -6                              | 0.0                     | 33.2            |
|          | 6/7/18                     | 25                              | 16.99            | 1.050                        | 6.00 | -8                              | 0.0                     | 2.0             |
|          | 7/11/19                    | 35                              | 21.42            | 1.360                        | 6.11 | -38                             | 0.0                     | 11.0            |
|          | 2/5/20                     | 30                              | 14.68            | 1.140                        | 5.76 | 22                              | 0.0                     | 0.0             |
| MiHpt-15 | 1/29/18                    | 25                              | 13.50            | 0.592                        | 6.19 | 52                              | 0.0                     | 18.1            |
|          | 6/7/18                     | 25                              | 18.03            | 0.903                        | 6.16 | 50                              | 0.0                     | 70.5            |
|          | 7/11/19                    | 20                              | 22.19            | 1.430                        | 6.32 | -6                              | 0.0                     | 23.4            |
|          | 2/5/20                     | 30                              | 13.46            | 0.663                        | 5.99 | 134                             | 0.0                     | 129             |

**TABLE 3. GROUNDWATER PARAMETER READINGS AT STABLIZATION**

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Well ID  | Date<br>Measurement<br>Collected | Time to<br>Stabilization<br>(minutes) | Temperature<br>(°C) | Specific<br>Conductance<br>(mS/cm) | pH   | Oxygen<br>Reduction<br>Potential<br>(mv) | Dissolved<br>Oxygen<br>(mg/l) | Turbidity<br>(NTU) |
|----------|----------------------------------|---------------------------------------|---------------------|------------------------------------|------|------------------------------------------|-------------------------------|--------------------|
| MiHpt-20 | 1/29/18                          | 35                                    | 16.12               | 0.754                              | 6.43 | 19                                       | 0.0                           | 11.2               |
|          | 6/7/18                           | 30                                    | 16.37               | 0.947                              | 5.92 | 119                                      | 0.1                           | 115.0              |
|          | 7/11/19                          | 25                                    | 22.11               | 0.668                              | 6.11 | 164                                      | 0.8                           | 19.0               |
|          | 2/5/20                           | 35                                    | 14.05               | 0.620                              | 6.03 | 177                                      | 0.0                           | 52.7               |
| MiHpt-21 | 1/29/18                          | 10/DRY                                | 15.48               | 0.948                              | 6.26 | -25                                      | 0.0                           | 148.0              |
|          | 6/7/18                           | 10/DRY                                | 17.06               | 1.150                              | 6.41 | -22                                      | 2.7                           | 437.0              |
|          | 7/11/19                          | 20/DRY                                | 23.36               | 1.610                              | 6.92 | -106                                     | 0.0                           | 46.7               |
|          | 2/5/20                           | 30                                    | 14.52               | 1.700                              | 6.65 | -72                                      | 0.0                           | 28.5               |
| MiHpt-22 | 1/29/18                          | 15/DRY                                | 14.72               | 0.654                              | 6.26 | -24                                      | 0.0                           | 28.6               |
|          | 6/7/18                           | 25                                    | 17.10               | 0.772                              | 6.50 | -48                                      | 0.0                           | 170.0              |
|          | 7/11/19                          | 25                                    | 22.10               | 0.903                              | 6.79 | -99                                      | 0.0                           | 40.1               |
|          | 2/5/20                           | 30                                    | 13.86               | 0.793                              | 6.16 | -6                                       | 2.7                           | 66.9               |
| MW-23    | 1/29/18                          | 35                                    | 15.78               | 0.536                              | 6.66 | -74                                      | 0.0                           | 60.7               |
|          | 6/7/18                           | 30                                    | 17.58               | 0.730                              | 6.48 | -40                                      | 0.0                           | 5.2                |
|          | 7/11/19                          | 25                                    | 18.86               | 1.060                              | 6.45 | -81                                      | 0.0                           | 18.1               |
|          | 2/5/20                           | 25                                    | 15.96               | 0.782                              | 6.68 | -117                                     | 0.8                           | 19.0               |
| MW-24    | 1/29/18                          | 35                                    | 12.40               | 0.570                              | 6.63 | -132                                     | 0.0                           | 3.1                |
|          | 6/7/18                           | 30                                    | 12.51               | 0.597                              | 6.20 | -31                                      | 0.0                           | 3.3                |
|          | 7/11/19                          | 20                                    | 23.01               | 0.872                              | 6.33 | -48                                      | 0.0                           | 16.7               |
|          | 2/5/20                           | 30                                    | 12.67               | 0.653                              | 6.49 | -181                                     | 2.2                           | 1.1                |
| MW-25    | 1/29/18                          | 35                                    | 14.78               | 2.380                              | 4.39 | 75                                       | 0.0                           | 6.3                |
|          | 6/7/18                           | 30                                    | 15.13               | 2.390                              | 4.16 | 85                                       | 0.0                           | 2.3                |
|          | 7/11/19                          | 25                                    | 22.17               | 2.640                              | 4.03 | 67                                       | 0.0                           | 13.2               |
|          | 2/5/20                           | 30                                    | 13.10               | 3.060                              | 4.08 | -156                                     | 0.8                           | 27.0               |

**NOTES:**

°C = degrees Celcius  
mS/cm = milliSiemens per cubic meter  
mv = millivolts  
mg/l = milligrams per liter  
NTU = Nephelometric Turbidity Units  
NM = not measured  
DRY = well went dry

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | TEC-MW2 |        |         |        |         |        | TEC-MW4 |        |         |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 9/21/16 | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 9/21/16 | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | <0.1    | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | 0.21    | 0.18   | 0.28    | 0.22   | <0.13   | 0.12   | 0.21    | 0.26   | 0.30    | 0.17   | 0.11    | 0.19   |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <5.0   | <10     | <10    | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <1.0   | <10     | <10    | <10     | <10    | <10     | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | 2.5     | 2.8    | 2.3     | 1.5    | <1.0    | 1.1    | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <1.0    | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | NA      | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | NA      | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | NA      | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | NA      | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | 0.30   |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | NA      | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   | <5.0    | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | NA      | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | NA      | <0.50  | <0.50   | <0.50  | <0.50   | 0.83   | <5.0    | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
SVOCs = semi-VOCs  
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample



TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | ECS-MW4 |        |         |         |         |        | MiHpt-05 |        |         |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|---------|--------|---------|---------|---------|--------|----------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 9/21/16 | 2/7/17 | 1/29/18 | 6/71/18 | 7/11/19 | 2/5/20 | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |         |        |         |         |         |        |          |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | <0.1    | <0.1   | <0.1    | <0.1    | <0.1    | <0.1   | 0.81     | 0.79   | 0.6     | 0.95   | 0.45    | 0.49   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | <0.10   | <0.10  | 0.11    | <0.10   | <0.10   | <0.11  | 0.52     | 0.41   | 0.41    | 0.48   | 0.70    | 0.44   |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |         |        |         |         |         |        |          |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10     | <10    | <10     | <10     | <10     | <5.0   | <10      | <10    | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 110      | 150    | 130     | 130    | 100     | 91     |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10     | <10    | <10     | <10     | <10     | <1.0   | <10      | <10    | <10     | <10    | <10     | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10     | <10    | <10     | <10     | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 26       | 14     | 13      | 24     | 30      | 48     |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 4.5      | 4.4    | 5.5     | 7.9    | 10      | 12     |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | 3.7     | 4.7    | 4.9     | 4.8     | 5.9     | 5.1    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | 1.7    |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10     | <10    | <10     | <10     | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 170      | 250    | 220     | 340    | 390     | 430    |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <1.0    | <1.0   | <5.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 2.4      | 1.0    | 1.5     | 2.6    | 2.9     | 2.8    |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | <2.0    | <2.0   | <2.0    | <2.0    | <2.0    | <2.0   | 12       | 18     | 19      | 22     | 27      | 26     |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0    | <1.0    | <1.0   | 23       | 38     | 39      | 37     | 45      | 47     |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |         |        |         |         |         |        |          |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | <5.0    | <5.0   | <5.0    | <5.0    | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | <5.0    | <5.0   | <5.0    | <5.0    | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | <5.0    | <5.0   | <5.0    | <5.0    | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | <5.0    | <5.0   | <5.0    | <5.0    | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | 16       | 1.9    | 1.4     | 8.0    | 36      | 53     |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | <5.0    | 2.5    | 2.1     | 1.1     | 5.0     | 7.4    | <5.3     | 1.0    | <0.50   | 1.7    | 8.7     | 15     |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | <5.0    | <0.50  | <0.50   | <0.50   | 0.70    | 0.93   | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.50   |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.29   |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | 3.1    |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | 0.78   |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | 5.6    |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.68   |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | <5.0    | 0.75   | 0.66    | <0.50   | 1.3     | 1.9    | <5.3     | 1.1    | <0.50   | 1.3    | 4.9     | 7.0    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | 83       | 47     | 16      | 48     | 190     | 230    |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | <5.0    | <5.0   | <5.0    | <5.0    | <5.0    | <2.0   | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.25  | <5.3     | <0.50  | <0.50   | 0.55   | 1.8     | 3.1    |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | 0.28   | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.48   |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | <5.0    | <0.50  | <0.50   | <0.50   | <0.50   | <0.50  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
SVOCs = semi-VOCs  
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | MiHpt-07 |        |         |        |         |        | MiHpt-08 |        |         |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|----------|--------|---------|--------|---------|--------|----------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | 0.88     | 0.89   | 1.4     | 2.1    | 1       | 0.97   | <0.1     | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | 2.0      | 1.8    | 2.6     | 3.6    | 2.7     | 1.5    | 0.15     | 0.20   | 0.22    | 0.17   | <0.12   | <0.10  |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <5.0   | <10      | <10    | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | 25       | 31     | 59      | 75     | 88      | 93     | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <1.0   | <10      | <10    | <10     | <10    | <10     | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | 61       | 57     | 94      | 110    | 140     | 120    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | 12       | 13     | 15      | 23     | 25      | 21     | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | 1.0      | 1.6    | 1.4     | 1.7    | 1.7     | 1.6    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 830      | 720    | 970     | 1400   | 1900    | 1500   | 14       | 14     | <1.0    | 21     | 20      | 16     |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | 3.7      | 2.7    | 2.9     | 2.9    | 4.2     | 3.4    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | 32       | 30     | 39      | 52     | 110     | 78     | <2.0     | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | 32       | 38     | 56      | 61     | 77      | 70     | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | 40       | 28     | 4.7     | 37     | 190     | 270    | <5.3     | <0.50  | <0.50   | 0.74   | 1.0     | 1.9    |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | 36       | 38     | 14      | 25     | 74      | 130    | <5.3     | 1.6    | 0.66    | 1.4    | 1.8     | 4.2    |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | <5.0     | 1.2    | <0.50   | 0.57   | 0.92    | 0.91   | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | <5.0     | 1.6    | 0.61    | 1.7    | 3.3     | 5.1    | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | 7.0      | 7.1    | <5.0    | 5.4    | 17      | 29     | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | 6.0    | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | 2.0    |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | 5.3     | 7.4    | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | 1.4    |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | <5.0     | <0.50  | <0.50   | <0.50  | 0.67    | 1.1    | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.38   |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | 8.2      | 9.5    | 3.5     | 7.2    | 18      | 28     | <5.3     | 0.51   | <0.50   | 0.68   | 0.70    | 1.6    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 200      | 170    | 73      | 170    | 740     | 1100   | <5.3     | 2.2    | <0.50   | 4.1    | 4.8     | 7.6    |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   | <5.3     | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | 8.7      | 8.8    | 3.2     | 8.3    | 17      | 27     | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 1.2    |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | <5.0     | <0.50  | <0.50   | <0.50  | 0.77    | 1.3    | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
SVOCs = semi-VOCs  
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | MiHpt-14 |        |         |        |         |        | MiHpt-15 |        |         |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|----------|--------|---------|--------|---------|--------|----------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | 0.33     | 0.41   | 0.28    | 0.41   | 0.22    | 0.21   | <0.1     | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | 0.75     | 1.2    | 1.5     | 1.3    | 0.59    | 0.84   | <0.10    | <0.10  | <0.10   | <0.10  | <0.11   | <0.10  |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <5.0   | <10      | <10    | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | 66       | 70     | 66      | 92     | 73      | 49     | 9.9      | 6.2    | <1.0    | 1.6    | 11      | 4.7    |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <1.0   | <10      | <10    | <10     | <10    | <10     | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | 1.4      | 1.3    | 2.2     | 1.1    | 6.8     | 9.1    | 7.7      | 63     | 12      | 43     | 1.7     | 5.8    |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | 5.4      | 7.4    | 6.0     | 9.8    | 10      | 6.4    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | <1.0     | <1.0   | <1.0    | 1.3    | 1.2     | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | 1.2     | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | <10      | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 37       | 48     | 48      | 62     | 56      | 39     | <1.0     | 1.1    | <1.0    | <1.0   | 1.1     | 1.5    |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | 5.6      | 5.6    | 4.7     | 6.1    | 6.2     | 5.0    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | 2.8      | 4.5    | 3.8     | 4.9    | 5.8     | 4.0    | <2.0     | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | 4.8      | 7.4    | 5.7     | 8.5    | 9.2     | 6.1    | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | <5.0     | <5.0   | <5.3    | <5.0   | <2.0    | 0.70   | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | <5.0     | <5.0   | <5.3    | <5.0   | <2.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | 13       | <5.0   | <5.3    | <5.0   | <2.0    | 7.8    | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | <5.3     | <5.0   | <5.3    | <5.0   | <2.0    | 0.63   | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | <5.0     | <5.0   | <5.3    | <5.0   | <5.0    | 1.2    | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | <5.0     | 0.68   | <0.53   | 0.54   | 1.1     | 2.1    | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | <5.0     | <5.0   | <5.3    | <5.0   | <5.0    | 0.78   | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | <5.0     | <5.0   | <5.3    | <5.0   | <5.0    | 1.7    | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | 12       | 8.5    | 2.5     | 5.9    | 18      | 34     | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | <5.0     | <0.50  | <0.53   | <0.50  | 1.2     | 2.0    | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | 6.3      | 2.4    | 0.83    | 1.6    | 3.8     | 9.1    | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | <5.3     | <0.50  | <0.50   | <0.50  | <0.50   | 0.41   | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | <5.0     | <5.0   | <5.3    | <5.0   | <5.0    | 6.5    | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | 7.4      | <5.0   | <5.3    | <5.0   |         | 13     | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | 13       | 7.2    | <5.3    | <5.0   |         | 14     | 28       | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | <5.0     | 1.9    | 0.60    | 1.1    | 2.5     | 6.0    | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | 18       | 9.6    | 2.9     | 6.0    | 17      | 35     | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 10       | 8.8    | 2.9     | 7.1    | 17      | 29     | <5.0     | 1.7    | 1.8     | <0.50  | 0.62    | 0.66   |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | <5.0     | <5.0   | <5.3    | <5.0   | <5.0    | <2.0   | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | 21       | 6.9    | 2.3     | 4.1    | 10      | 24     | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | <5.0     | 1.3    | <0.53   | 0.71   | 1.8     | 4.0    | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | <5.0     | <0.50  | <0.53   | <0.50  | <0.50   | <0.50  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
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EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
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VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample



TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | MiHpt-20 |        |         |        |         |        | MiHpt-21 |        |         |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|----------|--------|---------|--------|---------|--------|----------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | 0.18     | 0.14   | 0.16    | <0.1   | <0.1    | <0.1   | 7.5      | 15     | 4.5     | 12     | 12      | 12     |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | 0.72     | 0.62   | 0.77    | <0.10  | <0.10   | <0.10  | 1.7      | 1.2    | 2.3     | 2.4    | 2.2     | 1.5    |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <5.0   | <50      | <100   | 19      | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | 14       | 13     | 14      | <1.0   | <1.0    | <1.0   | 58       | 59     | 75      | 74     | 77      | 71     |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <1.0   | <10      | <10    | <10     | <10    | <1.0    | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | <1.0     | <1.0   | <1.0    | 1.2    | 1.4     | 1.3    | <5.0     | <10    | <1.0    | 8.4    | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | 10     |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | 560      | 710    | 460     | 1200   | 1500    | 1600   |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | 1.4      | <1.0   | 1.5     | <1.0   | <1.0    | <1.0   | 150      | 160    | 73      | 140    | 170     | 150    |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | 17       | 15     | 8.4     | 15     | 14      | 12     |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <5.0     | <10    | <1.0    | <1.0   | <1.0    | <1.0   |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10      | <10    | <10     | <10    | <10     | <10    | 460      | 690    | 340     | 670    | 740     | 690    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 67       | 42     | 64      | <1.0   | <1.0    | <1.0   | 6.4      | <10    | 3.2     | 3.2    | 3.1     | 3.3    |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   | 47       | 64     | 26      | 60     | 76      | 70     |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | 2.6      | 2.0    | 2.2     | <1.0   | <1.0    | <1.0   | 45       | 44     | 31      | 46     | 67      | 62     |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | 10       | 11     | 10      | 14     | 27      | 26     |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | 2.1     | 2.1    | 5.4     | 4.4    |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0     | <1.0   | <1.0    | 1.3    | 6.1     | 5.5    |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | <2.0     | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | 190      | 240    | 110     | 200    | 250     | 240    |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | 1.4      | 1.1    | 1.6     | <1.0   | <1.0    | <1.0   | 9.1      | 11     | 4.6     | 7.6    | 11      | 9.6    |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |          |        |         |        |         |        |          |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | 53       | 19     | 11      | 32     | 32      | 75     |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | 3.3    |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | 710      | 220    | 120     | 370    | 290     | 920    |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <2.0    | 0.61   |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | 8.3      | <5.0   | <5.0    | 5.1    | 13      | 47     |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | 0.35   |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | 1.1    |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | 6.3      | 1.7    | 2.0     | <0.50  | <0.50   | 0.30   | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | <5.0     | 0.94   | 1.2     | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | 11       | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <0.50  |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | 12       | 2.5    | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 13       | 4.3    | 5.7     | 0.52   | <0.50   | 0.62   | 35       | 0.66   | <0.50   | 26     | 48      | 1.1    |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | <5.0     | <5.0   | <5.0    | <5.0   | <5.0    | <2.0   | 13       | <5.0   | <5.0    | 6.8    | 7.8     | 22     |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | 10       | 1.5    | 1.7     | <0.50  | <0.50   | 0.25   | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.25  |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  | <5.0     | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
SVOCs = semi-VOCs  
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-<br>T3RGSL | VDEQ-<br>T3IGSL | VDEQ-<br>T3CDSL | VDEQ-PDS | VDEQ-<br>T2PWSSL | VDEQ-<br>T2SWFSL | MiHpt-22 |        |         |        |         |        | MW-23   |        |         |        |
|-----------------------------|-------|-----------|-----------------|-----------------|-----------------|----------|------------------|------------------|----------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |                 |                 |                 |          |                  |                  | 9/21/16  | 2/7/17 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |                 |                 |                 |          |                  |                  |          |        |         |        |         |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE              | NE              | NE              | 15       | NE               | NE               | 0.38     | 2.3    | 0.27    | 0.56   | 0.23    | <0.1   | <0.1    | <0.1   | <0.1    | <0.1   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE              | NE              | NE              | 15       | NE               | NE               | 0.27     | 0.19   | 33      | 0.38   | 0.12    | <0.11  | 0.28    | 0.15   | <0.10   | <0.10  |
| TCL VOCs 8260B              |       |           |                 |                 |                 |          |                  |                  |          |        |         |        |         |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000         | 9780000         | 13400           | NE       | NE               | NE               | <10      | <10    | <10     | <10    | <10     | <5.0   | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7            | 57.3            | 14.2            | 12       | 22               | 510              | 130      | 630    | 34      | 200    | 93      | 33     | <1.0    | <1.0   | <1.0    | <1.0   |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124             | 527             | 122             | NE       | NE               | NE               | <10      | <10    | <10     | <10    | <10     | <1.0   | <10     | <10    | <10     | <1.0   |
| Chloroform                  | ug/L  | 67-66-3   | 8               | 35.3            | 54.3            | 80       | 340              | 11000            | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07           | 108.16          | 432.29          | NE       | NE               | NE               | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103             | 424             | 3330            | NE       | NE               | NE               | 10       | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1            | 152             | 591             | 4.3      | 530              | 2100             | 1.6      | 16     | <1.0    | 2.1    | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3            | 383             | 19.9            | NE       | NE               | NE               | <1.0     | 1.6    | 1.2     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580            | 19600           | 524             | 15       | NE               | NE               | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | 4.3     | 5.5    | 5.7     | 6.4    |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE              | NE              | NE              | NE       | NE               | NE               | <1.0     | <10    | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2            | 72.3            | 0.722           | 8.9      | NE               | NE               | <1.0     | 3.1    | 1.3     | <1.0   | 1.1     | <1.0   | 1.4     | 1.3    | <1.0    | <1.0   |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8             | 24.9            | 10.4            | 5        | 6.9              | 33               | <1.0     | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920            | 8100            | 949             | 43       | 510              | 6000             | <1.0     | 3.5    | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521           | 2.19            | 0.46            | 5        | 25               | 300              | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE              | NE              | 2260            | 70       | NE               | NE               | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE              | NE              | 157             | 100      | 140              | 10000            | <1.0     | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150             | 1290            | 20.8            | 33       | NE               | NE               | <2.0     | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2            | 208             | 20.9            | 33       | NE               | NE               | <1.0     | 8.4    | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| TCL SVOCs 8270C             |       |           |                 |                 |                 |          |                  |                  |          |        |         |        |         |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE              | NE              | 7860            | NE       | 300              | 600              | <5.0     | <5.0   | <5.6    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE              | NE              | 27.37           | NE       | 14               | 24               | <5.0     | <5.0   | <5.6    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE              | NE              | 1060            | NE       | 77               | 290              | <5.0     | <5.0   | <5.6    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE              | NE              | 5388.61         | NE       | 380              | 850              | <5.0     | <5.0   | <5.6    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE              | NE              | 1110            | NE       | 81               | 150              | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE              | NE              | 59              | NE       | NE               | NE               | <5.0     | <0.50  | <0.56   | <0.50  | 0.69    | <0.25  | <0.50   | <0.50  | <0.50   | <0.25  |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE              | NE              | 30174.44        | NE       | NE               | NE               | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE              | NE              | NE              | NE       | NE               | NE               | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE              | NE              | 2950            | NE       | 670              | 990              | <5.0     | <0.50  | <0.56   | <0.50  | 0.75    | <0.25  | 0.90    | 1.5    | 7.2     | 6.8    |
| Acenaphthylene              | ug/L  | 208-96-8  | NE              | NE              | 1430            | NE       | NE               | NE               | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE              | NE              | 7850            | NE       | 8300             | 40000            | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | <0.50   | <0.50  | 0.50    | 0.47   |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52          | 4076.67         | 69.33           | NE       | 0.038            | 0.18             | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34            | 14.3            | 1.18            | NE       | NE               | NE               | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| Carbazole                   | ug/L  | 86-74-8   | NE              | NE              | NE              | NE       | NE               | NE               | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | 3.7    |
| Dibenzofuran                | ug/L  | 132-64-9  | NE              | NE              | 48.4            | NE       | NE               | NE               | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | 3.7    |
| Fluoranthene                | ug/L  | 206-44-0  | NE              | NE              | 311             | NE       | 130              | 140              | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | <0.50   | <0.50  | 0.67    | 0.77   |
| Fluorene                    | ug/L  | 86-73-7   | NE              | NE              | 4370            | NE       | 1100             | 5300             | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | 0.52    | 0.77   | 3.8     | 3.4    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2            | 72.3            | 0.722           | 8.9      | NE               | NE               | <5.0     | <0.50  | <0.56   | <0.50  | 0.99    | <0.25  | <0.50   | <0.50  | <0.50   | <0.25  |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE              | NE              | 5.54            | NE       | 0.03             | 0.04             | <5.0     | <5.0   | <5.6    | <5.0   | <5.0    | <2.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE              | NE              | 1430            | NE       | NE               | NE               | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | 0.60    | <0.50  | 1.5     | 1.5    |
| Pyrene                      | ug/L  | 129-00-0  | NE              | NE              | 1430            | NE       | 830              | 4000             | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.25  | <0.50   | <0.50  | <0.50   | 0.56   |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252         | 0.01122         | 0.02572         | NE       | 12               | 22               | <5.0     | <0.50  | <0.56   | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:  
TPH = total petroleum hydrocarbons  
TPH-DRO = diesel range TPH  
TPH-GRO = gasoline range TPH  
TCL = Target Compound List  
VOCs = volatile organic compounds  
SVOCs = semi-VOCs  
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
<1.0 = not detected above analytical method reporting limit (RL)  
VDEQ = Commonwealth of Virginia Department of Environmental Quality  
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level  
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level  
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level  
VDEQ-PDS = general permit discharge standard for petroleum contaminated water  
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level  
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level  
NE = not established  
Bold and right justification designates target compound was detected at a concentration above RL  
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample  
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample  
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH  
500 AND 501 NORTH UNION STREET  
ALEXANDRIA, VA

| Sample ID:                  | Units | CAS No.   | VDEQ-T3RGSL | VDEQ-T3IGSL | VDEQ-T3CDSL | VDEQ-PDS | VDEQ-T2PWSSL | VDEQ-T2SWFSL | MW-24   |        |         |        | MW-25   |        |         |        |
|-----------------------------|-------|-----------|-------------|-------------|-------------|----------|--------------|--------------|---------|--------|---------|--------|---------|--------|---------|--------|
| Sample Date:                |       |           |             |             |             |          |              |              | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 | 1/29/18 | 6/7/18 | 7/11/19 | 2/5/20 |
| TPH 8015                    |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |
| TPH-GRO (C6-C10)            | mg/L  | C6C10GRO  | NE          | NE          | NE          | 15       | NE           | NE           | <0.1    | <0.1   | <0.1    | <0.1   | 0.11    | 0.16   | <0.1    | <0.1   |
| TPH-DRO (C10-C28)           | mg/L  | C10C28DRO | NE          | NE          | NE          | 15       | NE           | NE           | 1.1     | 0.61   | 0.13    | 0.47   | 0.45    | 0.33   | 0.16    | 0.26   |
| TCL VOCs 8260B              |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |
| Acetone                     | ug/L  | 67-64-1   | 2240000     | 9780000     | 13400       | NE       | NE           | NE           | <10     | <10    | <10     | <5.0   | <10     | <10    | <10     | <5.0   |
| Benzene                     | ug/L  | 71-43-2   | 13.7        | 57.3        | 14.2        | 12       | 22           | 510          | <1.0    | <1.0   | <1.0    | <1.0   | 14      | 17     | 26      | 23     |
| Carbon Disulfide            | ug/L  | 75-15-0   | 124         | 527         | 122         | NE       | NE           | NE           | <10     | <10    | <10     | <1.0   | <10     | <10    | 15      | 11     |
| Chloroform                  | ug/L  | 67-66-3   | 8           | 35.3        | 54.3        | 80       | 340          | 11000        | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Chloromethane               | ug/L  | 74-87-3   | 26.07       | 108.16      | 432.29      | NE       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Cyclohexane                 | ug/L  | 110-82-7  | 103         | 424         | 3330        | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Ethylbenzene                | ug/L  | 100-41-4  | 34.1        | 152         | 591         | 4.3      | 530          | 2100         | <1.0    | <1.0   | <1.0    | <1.0   | 2.3     | 2.1    | 2.8     | 2.3    |
| Isopropylbenzene            | ug/L  | 98-82-8   | 89.3        | 383         | 19.9        | NE       | NE           | NE           | 1.7     | 2.7    | <1.0    | 2.8    | 1.6     | 1.7    | 1.5     | 1.3    |
| Methyl-t-butyl ether        | ug/L  | 1634-04-4 | 4580        | 19600       | 524         | 15       | NE           | NE           | 3.9     | 1.9    | 1.5     | 3.5    | <1.0    | <1.0   | <1.0    | <1.0   |
| Methylcyclohexane           | ug/L  | 108-87-2  | NE          | NE          | NE          | NE       | NE           | NE           | <10     | <10    | <10     | <10    | <10     | <10    | <10     | <10    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | 2.6     | 3.4    | <1.0    | 2.1    | 83      | 77     | 78      | 65     |
| Tetrachloroethene (PCE)     | ug/L  | 127-18-4  | 5.8         | 24.9        | 10.4        | 5        | 6.9          | 33           | <5.0    | <1.0   | <1.0    | <1.0   | <5.0    | <1.0   | <1.0    | <1.0   |
| Toluene                     | ug/L  | 108-88-3  | 1920        | 8100        | 949         | 43       | 510          | 6000         | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| Trichloroethene (TCE)       | ug/L  | 79-01-6   | 0.521       | 2.19        | 0.46        | 5        | 25           | 300          | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| cis-1,2-Dichloroethene      | ug/L  | 156-59-2  | NE          | NE          | 2260        | 70       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| trans-1,2-Dichloroethene    | ug/L  | 156-60-5  | NE          | NE          | 157         | 100      | 140          | 10000        | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   | <1.0    | <1.0   |
| m,p-Xylenes                 | ug/L  | 108-38-3  | 150         | 1290        | 20.8        | 33       | NE           | NE           | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   | <2.0    | <2.0   |
| o-Xylene                    | ug/L  | 95-47-6   | 47.2        | 208         | 20.9        | 33       | NE           | NE           | <1.0    | <1.0   | <1.0    | <1.0   | 2.4     | 1.9    | 2.5     | 2.1    |
| TCL SVOCs 8270C             |       |           |             |             |             |          |              |              |         |        |         |        |         |        |         |        |
| 2,4,5-Trichlorophenol       | ug/L  | 95-95-4   | NE          | NE          | 7860        | NE       | 300          | 600          | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4,6-Trichlorophenol       | ug/L  | 88-06-2   | NE          | NE          | 27.37       | NE       | 14           | 24           | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dichlorophenol          | ug/L  | 120-83-2  | NE          | NE          | 1060        | NE       | 77           | 290          | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | <0.50  |
| 2,4-Dimethylphenol          | ug/L  | 105-67-9  | NE          | NE          | 5388.61     | NE       | 380          | 850          | <5.0    | <5.0   | <2.0    | <0.50  | <5.0    | <5.0   | <2.0    | 0.54   |
| 2-Chlorophenol              | ug/L  | 95-57-8   | NE          | NE          | 1110        | NE       | 81           | 150          | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| 2-Methylnaphthalene         | ug/L  | 91-57-6   | NE          | NE          | 59          | NE       | NE           | NE           | <0.50   | <0.50  | <0.50   | <0.25  | <0.50   | 0.58   | 1.9     | 3.5    |
| 2-Methyl phenol             | ug/L  | 95-48-7   | NE          | NE          | 30174.44    | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| 3&4-Methylphenol            | ug/L  |           | NE          | NE          | NE          | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | <0.50  |
| Acenaphthene                | ug/L  | 83-32-9   | NE          | NE          | 2950        | NE       | 670          | 990          | 2.5     | 8.3    | 8.0     | 56     | 0.81    | 1.5    | 5.0     | 11     |
| Acenaphthylene              | ug/L  | 208-96-8  | NE          | NE          | 1430        | NE       | NE           | NE           | <0.50   | <0.50  | <0.50   | 0.38   | <0.50   | <0.50  | <0.50   | <0.25  |
| Anthracene                  | ug/L  | 120-12-7  | NE          | NE          | 7850        | NE       | 8300         | 40000        | 0.55    | 1.1    | 0.73    | 7.2    | <0.50   | <0.50  | <0.50   | 0.71   |
| Benzo(a)anthracene          | ug/L  | 56-55-3   | 346.52      | 4076.67     | 69.33       | NE       | 0.038        | 0.18         | <0.50   | <0.50  | <0.50   | 0.25   | <0.50   | <0.50  | <0.50   | <0.25  |
| Biphenyl (Diphenyl)         | ug/L  | 92-52-4   | 3.34        | 14.3        | 1.18        | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | <0.50  | <5.0    | <5.0   | <5.0    | 1.3    |
| Carbazole                   | ug/L  | 86-74-8   | NE          | NE          | NE          | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | 0.79   | <5.0    | <5.0   | <5.0    | 5.8    |
| Dibenzofuran                | ug/L  | 132-64-9  | NE          | NE          | 48.4        | NE       | NE           | NE           | <5.0    | <5.0   | <5.0    | 23     | <5.0    | <5.0   | <5.0    | 3.7    |
| Fluoranthene                | ug/L  | 206-44-0  | NE          | NE          | 311         | NE       | 130          | 140          | 1.1     | 0.91   | 0.87    | 6.7    | <0.50   | <0.50  | <0.50   | 1.1    |
| Fluorene                    | ug/L  | 86-73-7   | NE          | NE          | 4370        | NE       | 1100         | 5300         | 1.3     | 3.9    | 3.8     | 28     | <0.50   | 0.75   | 2.5     | 5.3    |
| Naphthalene                 | ug/L  | 91-20-3   | 17.2        | 72.3        | 0.722       | 8.9      | NE           | NE           | <0.50   | <0.50  | <0.50   | 0.98   | 3.5     | 6.1    | 20      | 35     |
| Pentachlorophenol           | ug/L  | 87-86-5   | NE          | NE          | 5.54        | NE       | 0.03         | 0.04         | <5.0    | <5.0   | <5.0    | <2.0   | <5.0    | <5.0   | <5.0    | <2.0   |
| Phenanthrene                | ug/L  | 85-01-8   | NE          | NE          | 1430        | NE       | NE           | NE           | 2.2     | 5.8    | 3.5     | 34     | <0.50   | 1.1    | 2.6     | 5.7    |
| Pyrene                      | ug/L  | 129-00-0  | NE          | NE          | 1430        | NE       | 830          | 4000         | 0.88    | 0.59   | 0.56    | 4.3    | <0.50   | <0.50  | <0.50   | 0.70   |
| bis(2-ethylhexyl) phthalate | ug/L  | 117-81-7  | 0.00252     | 0.01122     | 0.02572     | NE       | 12           | 22           | <0.50   | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  | <0.50   | <0.50  |

NOTES:

TPH = total petroleum hydrocarbons

TPH-DRO = diesel range TPH

TPH-GRO = gasoline range TPH

TCL = Target Compound List

VOCs = volatile organic compounds

SVOCs = semi-VOCs

EPA 8260B = United States Environmental Protection Agency SW-846 analytical method

ug/L = micrograms per liter

mg/L = milligrams per liter

<1.0 = not detected above analytical method reporting limit (RL)

VDEQ = Commonwealth of Virginia Department of Environmental Quality

VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level

VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level

VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level

VDEQ-PDS = general permit discharge standard for petroleum contaminated water

VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level

VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level

NE = not established

Bold and right justification designates target compound was detected at a concentration above RL

Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample

Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample

Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample



**ATTACHMENT 1**

**LABORATORY REPORT OF  
ANALYSIS**

Project Name: RTN  
PSS Project No.: 20020613

February 13, 2020

**Mike Bruzzesi**  
**A-Zone Environmental Services**  
2181 Berryville Pike  
Charles Town, WV 25414

Reference: PSS Project No: **20020613**  
Project Name: RTN  
Project Location: Alexandria, VA  
Project ID.: 6078



Dear Mike Bruzzesi:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20020613**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on March 12, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or [info@phaseonline.com](mailto:info@phaseonline.com).

Sincerely,

**Dan Prucnal**  
Laboratory Manager



Project Name: RTN  
PSS Project No.: 20020613

**Project ID: 6078**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 02/06/2020 at 12:50 pm

| PSS Sample ID | Sample ID | Matrix       | Date/Time Collected |
|---------------|-----------|--------------|---------------------|
| 20020613-001  | TEC-MW2   | GROUND WATER | 02/05/20 08:55      |
| 20020613-002  | TEC-MW4   | GROUND WATER | 02/05/20 12:30      |
| 20020613-003  | ECS-MW4   | GROUND WATER | 02/05/20 14:15      |
| 20020613-004  | MiHpt-5   | GROUND WATER | 02/05/20 13:20      |
| 20020613-005  | MiHpt-7   | GROUND WATER | 02/05/20 13:15      |
| 20020613-006  | MiHpt-8   | GROUND WATER | 02/05/20 08:45      |
| 20020613-007  | MiHpt-14  | GROUND WATER | 02/05/20 11:15      |
| 20020613-008  | MiHpt-15  | GROUND WATER | 02/05/20 12:10      |
| 20020613-009  | MiHpt-20  | GROUND WATER | 02/05/20 10:15      |
| 20020613-010  | MiHpt-21  | GROUND WATER | 02/05/20 09:15      |
| 20020613-011  | MiHpt-22  | GROUND WATER | 02/05/20 08:15      |
| 20020613-012  | MW23      | GROUND WATER | 02/05/20 11:40      |
| 20020613-013  | MW24      | GROUND WATER | 02/05/20 10:40      |
| 20020613-014  | MW25      | GROUND WATER | 02/05/20 09:45      |

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

**Notes:**

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

**Standard Flags/Abbreviations:**

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.



## Explanation of Qualifiers

Project Name: RTN  
PSS Project No.: 20020613

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### Certifications:

NELAP Certifications: PA 68-03330, VA 460156  
State Certifications: MD 179, WV 303  
Regulated Soil Permit: P330-12-00268  
NSWC USCG Accepted Laboratory  
LDBE MWAA LD1997-0041-2015

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW2** **Date/Time Sampled: 02/05/2020 08:55** **PSS Sample ID: 20020613-001**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3510C

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | 0.12            | mg/L  | 0.11          |      | 1   | 02/07/20 | 02/07/20 18:45 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 110             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 18:45 | 1070    |

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030B

|                                   | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-GRO (Gasoline Range Organics) | ND              | ug/L  | 100           |      | 1   | 02/10/20 | 02/10/20 20:42 | 1045    |
| <b>Surrogate(s)</b>               | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>a,a,a</i> -Trifluorotoluene    | 89              | %     | 64-142        |      | 1   | 02/10/20 | 02/10/20 20:42 | 1045    |

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                             | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| Acetone                     | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Benzene                     | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Bromochloromethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Bromodichloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Bromoform                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Bromomethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 2-Butanone (MEK)            | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Carbon Disulfide            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Carbon tetrachloride        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Chlorobenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Chloroethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Chloroform                  | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Chloromethane               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Cyclohexane                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2-Dibromo-3-chloropropane | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Dibromochloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2-Dibromoethane           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2-Dichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW2** **Date/Time Sampled: 02/05/2020 08:55** **PSS Sample ID: 20020613-001**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Methyl-t-Butyl Ether           | 1.1    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:05 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW2** **Date/Time Sampled: 02/05/2020 08:55** **PSS Sample ID: 20020613-001**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 100      | % | 87-109 | 1 | 02/10/20 | 02/10/20 15:05 | 1011 |
| Dibromofluoromethane | 103      | % | 93-111 | 1 | 02/10/20 | 02/10/20 15:05 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1 | 02/10/20 | 02/10/20 15:05 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| bis(2-ethylhexyl) phthalate  | 0.83   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW2** **Date/Time Sampled: 02/05/2020 08:55** **PSS Sample ID: 20020613-001**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Naphthalene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Phenanthrene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW2** **Date/Time Sampled: 02/05/2020 08:55** **PSS Sample ID: 20020613-001**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 61              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2-Fluorophenol        | 59              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Nitrobenzene-d5       | 56              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Phenol-d6             | 61              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| Terphenyl-D14         | 88              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |
| 2,4,6-Tribromophenol  | 87              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 16:15 | 1059    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: TEC-MW4</b>   | <b>Date/Time Sampled: 02/05/2020 12:30</b>  | <b>PSS Sample ID: 20020613-002</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

Total Petroleum Hydrocarbons - DRO      Analytical Method: SW-846 8015 C      Preparation Method: SW3510C

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | 0.19            | mg/L  | 0.11          |      | 1   | 02/07/20 | 02/07/20 19:10 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| o-Terphenyl                     | 86              | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 19:10 | 1070    |

Total Petroleum Hydrocarbons-GRO      Analytical Method: SW-846 8015C      Preparation Method: 5030B

|                                   | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-GRO (Gasoline Range Organics) | ND              | ug/L  | 100           |      | 1   | 02/10/20 | 02/10/20 21:05 | 1045    |
| <b>Surrogate(s)</b>               | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| a,a,a-Trifluorotoluene            | 92              | %     | 64-142        |      | 1   | 02/10/20 | 02/10/20 21:05 | 1045    |

TCL Volatile Organic Compounds      Analytical Method: SW-846 8260 B      Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                             | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| Acetone                     | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Benzene                     | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Bromochloromethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Bromodichloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Bromoform                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Bromomethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 2-Butanone (MEK)            | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Carbon Disulfide            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Carbon tetrachloride        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Chlorobenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Chloroethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Chloroform                  | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Chloromethane               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Cyclohexane                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2-Dibromo-3-chloropropane | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Dibromochloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2-Dibromoethane           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2-Dichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW4** **Date/Time Sampled: 02/05/2020 12:30** **PSS Sample ID: 20020613-002**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Methyl-t-Butyl Ether           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:28 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW4** **Date/Time Sampled: 02/05/2020 12:30** **PSS Sample ID: 20020613-002**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery | Limits |   |          |                |      |  |
|----------------------|----------|--------|---|----------|----------------|------|--|
| 4-Bromofluorobenzene | 101 %    | 87-109 | 1 | 02/10/20 | 02/10/20 15:28 | 1011 |  |
| Dibromofluoromethane | 103 %    | 93-111 | 1 | 02/10/20 | 02/10/20 15:28 | 1011 |  |
| Toluene-D8           | 101 %    | 91-109 | 1 | 02/10/20 | 02/10/20 15:28 | 1011 |  |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 0.30   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: TEC-MW4** **Date/Time Sampled: 02/05/2020 12:30** **PSS Sample ID: 20020613-002**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Naphthalene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Phenanthrene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: TEC-MW4</b>   | <b>Date/Time Sampled: 02/05/2020 12:30</b>  | <b>PSS Sample ID: 20020613-002</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Semivolatile Organic Compounds      Analytical Method: SW-846 8270 C      Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 83              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2-Fluorophenol        | 77              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Nitrobenzene-d5       | 77              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Phenol-d6             | 84              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| Terphenyl-D14         | 86              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |
| 2,4,6-Tribromophenol  | 96              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 16:41 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: ECS-MW4** **Date/Time Sampled: 02/05/2020 14:15** **PSS Sample ID: 20020613-003**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015 C Preparation Method: SW3510C

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.11          |      | 1   | 02/07/20 | 02/07/20 19:35 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 104             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 19:35 | 1070    |

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C Preparation Method: 5030B

|                                   | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-GRO (Gasoline Range Organics) | ND              | ug/L  | 100           |      | 1   | 02/10/20 | 02/10/20 21:28 | 1045    |
| <b>Surrogate(s)</b>               | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>a,a,a</i> -Trifluorotoluene    | 93              | %     | 64-142        |      | 1   | 02/10/20 | 02/10/20 21:28 | 1045    |

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                             | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| Acetone                     | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Benzene                     | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Bromochloromethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Bromodichloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Bromoform                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Bromomethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 2-Butanone (MEK)            | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Carbon Disulfide            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Carbon tetrachloride        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Chlorobenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Chloroethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Chloroform                  | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Chloromethane               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Cyclohexane                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2-Dibromo-3-chloropropane | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Dibromochloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2-Dibromoethane           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2-Dichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: ECS-MW4** **Date/Time Sampled: 02/05/2020 14:15** **PSS Sample ID: 20020613-003**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Methyl-t-Butyl Ether           | 5.1    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 15:51 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: ECS-MW4** **Date/Time Sampled: 02/05/2020 14:15** **PSS Sample ID: 20020613-003**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 101      | % | 87-109 | 1 | 02/10/20 | 02/10/20 15:51 | 1011 |
| Dibromofluoromethane | 104      | % | 93-111 | 1 | 02/10/20 | 02/10/20 15:51 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1 | 02/10/20 | 02/10/20 15:51 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 7.4    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Acenaphthylene               | 0.93   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: ECS-MW4** **Date/Time Sampled: 02/05/2020 14:15** **PSS Sample ID: 20020613-003**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result      | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|-------------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 3,3-Dichlorobenzidine       | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4-Dichlorophenol          | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Diethyl phthalate           | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Dimethyl phthalate          | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4-Dimethylphenol          | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND          | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4-Dinitrophenol           | ND          | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4-Dinitrotoluene          | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,6-Dinitrotoluene          | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Fluoranthene                | ND          | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Fluorene                    | <b>1.9</b>  | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Hexachlorobenzene           | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Hexachlorobutadiene         | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Hexachlorocyclopentadiene   | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Hexachloroethane            | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND          | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Isophorone                  | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Methylnaphthalene         | ND          | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Methyl phenol             | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 3&4-Methylphenol            | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Naphthalene                 | ND          | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Nitroaniline              | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 3-Nitroaniline              | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Nitroaniline              | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Nitrobenzene                | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Nitrophenol               | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 4-Nitrophenol               | ND          | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| N-Nitrosodiphenylamine      | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Di-n-octyl phthalate        | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Pentachlorophenol           | ND          | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Phenanthrene                | ND          | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Phenol                      | ND          | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Pyrene                      | <b>0.28</b> | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: ECS-MW4** **Date/Time Sampled: 02/05/2020 14:15** **PSS Sample ID: 20020613-003**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C  
Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 85              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2-Fluorophenol        | 80              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Nitrobenzene-d5       | 77              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Phenol-d6             | 86              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| Terphenyl-D14         | 86              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |
| 2,4,6-Tribromophenol  | 84              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 17:07 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-5</b>          | <b>Date/Time Sampled: 02/05/2020 13:20</b>  | <b>PSS Sample ID: 20020613-004</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | <b>0.44</b>     | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 19:35 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 97              | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 19:35 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | 490                             | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 21:51 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 93                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 21:51 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171790 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Benzene                                           | 91     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:13 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-5** **Date/Time Sampled: 02/05/2020 13:20** **PSS Sample ID: 20020613-004**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result     | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|------------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Dichlorodifluoromethane        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,4-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,2-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| cis-1,2-Dichloroethene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1-Dichloroethene             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,2-Dichloropropane            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| cis-1,3-Dichloropropene        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| trans-1,3-Dichloropropene      | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| trans-1,2-Dichloroethene       | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Ethylbenzene                   | <b>48</b>  | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 2-Hexanone (MBK)               | ND         | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Isopropylbenzene               | <b>12</b>  | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Methyl Acetate                 | ND         | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Methylcyclohexane              | ND         | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Methylene chloride             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND         | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Methyl-t-Butyl Ether           | <b>1.7</b> | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Naphthalene                    | <b>430</b> | ug/L  | 10  |      | 10  | 02/10/20 | 02/11/20 17:39 | 1011    |
| Styrene                        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Tetrachloroethene              | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Toluene                        | <b>2.8</b> | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,2,3-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,2,4-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1,1-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Trichloroethene                | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1,2-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Trichlorofluoromethane         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| Vinyl chloride                 | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| m&p-Xylene                     | <b>26</b>  | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |
| o-Xylene                       | <b>47</b>  | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:13 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-5** **Date/Time Sampled: 02/05/2020 13:20** **PSS Sample ID: 20020613-004**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |    |          |                |      |
|----------------------|----------|---|--------|----|----------|----------------|------|
| 4-Bromofluorobenzene | 100      | % | 87-109 | 1  | 02/10/20 | 02/10/20 16:13 | 1011 |
| Dibromofluoromethane | 103      | % | 93-111 | 1  | 02/10/20 | 02/10/20 16:13 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1  | 02/10/20 | 02/10/20 16:13 | 1011 |
| 4-Bromofluorobenzene | 104      | % | 87-109 | 10 | 02/11/20 | 02/11/20 17:39 | 1011 |
| Dibromofluoromethane | 104      | % | 93-111 | 10 | 02/11/20 | 02/11/20 17:39 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 10 | 02/11/20 | 02/11/20 17:39 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 15     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Acenaphthylene               | 0.50   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Anthracene                   | 0.29   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Biphenyl (Diphenyl)          | 3.1    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Carbazole                    | 0.78   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-5** **Date/Time Sampled: 02/05/2020 13:20** **PSS Sample ID: 20020613-004**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Chrysene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Dibenz(a,h)Anthracene       | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Dibenzofuran                | 5.6    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Fluoranthene                | 0.68   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Fluorene                    | 7.0    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Methylnaphthalene         | 53     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Naphthalene                 | 230    | ug/L  | 2.5  |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Phenanthrene                | 3.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-5** **Date/Time Sampled: 02/05/2020 13:20** **PSS Sample ID: 20020613-004**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Phenol                | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Pyrene                | <b>0.48</b>     | ug/L  | 0.25          |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 65              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Fluorophenol        | 61              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Nitrobenzene-d5       | 70              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Phenol-d6             | 64              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| Terphenyl-D14         | 87              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2,4,6-Tribromophenol  | 84              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 17:33 | 1059    |
| 2-Fluorobiphenyl      | 64              | %     | 35-107        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| 2-Fluorophenol        | 57              | %     | 32-106        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| Nitrobenzene-d5       | 71              | %     | 34-123        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| Phenol-d6             | 60              | %     | 36-111        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| Terphenyl-D14         | 84              | %     | 43-143        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |
| 2,4,6-Tribromophenol  | 75              | %     | 26-122        |      | 10  | 02/07/20 | 02/12/20 11:47 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-7</b>          | <b>Date/Time Sampled: 02/05/2020 13:15</b>  | <b>PSS Sample ID: 20020613-005</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | 1.5             | mg/L  | 0.11          |      | 1   | 02/07/20 | 02/07/20 20:00 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 96              | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:00 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | 970                             | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 22:14 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 91                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 22:14 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171790 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Benzene                                           | 93     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 16:36 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-7** **Date/Time Sampled: 02/05/2020 13:15** **PSS Sample ID: 20020613-005**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result       | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Dichlorodifluoromethane        | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,4-Dichlorobenzene            | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1-Dichloroethane             | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,2-Dichloroethane             | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| cis-1,2-Dichloroethene         | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1-Dichloroethene             | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,2-Dichloropropane            | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| cis-1,3-Dichloropropene        | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| trans-1,3-Dichloropropene      | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| trans-1,2-Dichloroethene       | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Ethylbenzene                   | <b>120</b>   | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 2-Hexanone (MBK)               | ND           | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Isopropylbenzene               | <b>21</b>    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Methyl Acetate                 | ND           | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Methylcyclohexane              | ND           | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Methylene chloride             | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND           | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Methyl-t-Butyl Ether           | <b>1.6</b>   | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Naphthalene                    | <b>1,500</b> | ug/L  | 10  |      | 10  | 02/10/20 | 02/11/20 18:02 | 1011    |
| Styrene                        | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Tetrachloroethene              | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Toluene                        | <b>3.4</b>   | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,2,3-Trichlorobenzene         | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,2,4-Trichlorobenzene         | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1,1-Trichloroethane          | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Trichloroethene                | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1,2-Trichloroethane          | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Trichlorofluoromethane         | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| Vinyl chloride                 | ND           | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| m&p-Xylene                     | <b>78</b>    | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |
| o-Xylene                       | <b>70</b>    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 16:36 | 1011    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-7** **Date/Time Sampled: 02/05/2020 13:15** **PSS Sample ID: 20020613-005**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |    |          |                |      |
|----------------------|----------|---|--------|----|----------|----------------|------|
| 4-Bromofluorobenzene | 100      | % | 87-109 | 1  | 02/10/20 | 02/10/20 16:36 | 1011 |
| Dibromofluoromethane | 102      | % | 93-111 | 1  | 02/10/20 | 02/10/20 16:36 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1  | 02/10/20 | 02/10/20 16:36 | 1011 |
| 4-Bromofluorobenzene | 105      | % | 87-109 | 10 | 02/11/20 | 02/11/20 18:02 | 1011 |
| Dibromofluoromethane | 102      | % | 93-111 | 10 | 02/11/20 | 02/11/20 18:02 | 1011 |
| Toluene-D8           | 101      | % | 91-109 | 10 | 02/11/20 | 02/11/20 18:02 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 130    | ug/L  | 5.0  |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| Acenaphthylene               | 0.91   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Anthracene                   | 5.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Biphenyl (Diphenyl)          | 29     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Carbazole                    | 6.0    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-7** **Date/Time Sampled: 02/05/2020 13:15** **PSS Sample ID: 20020613-005**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Chrysene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Dibenz(a,h)Anthracene       | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Dibenzofuran                | 7.4    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Fluoranthene                | 1.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Fluorene                    | 28     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Methylnaphthalene         | 270    | ug/L  | 5.0  |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Naphthalene                 | 1,100  | ug/L  | 5.0  |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Phenanthrene                | 27     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-7</b>   | <b>Date/Time Sampled: 02/05/2020 13:15</b>  | <b>PSS Sample ID: 20020613-005</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Semivolatile Organic Compounds      Analytical Method: SW-846 8270 C      Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Phenol                | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Pyrene                | 1.3             | ug/L  | 0.25          |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 86              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Fluorophenol        | 83              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Nitrobenzene-d5       | 85              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Phenol-d6             | 83              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2,4,6-Tribromophenol  | 92              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 17:58 | 1059    |
| 2-Fluorobiphenyl      | 92              | %     | 35-107        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| 2-Fluorophenol        | 72              | %     | 32-106        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| Nitrobenzene-d5       | 78              | %     | 34-123        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| Phenol-d6             | 76              | %     | 36-111        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| Terphenyl-D14         | 86              | %     | 43-143        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |
| 2,4,6-Tribromophenol  | 78              | %     | 26-122        |      | 20  | 02/07/20 | 02/12/20 12:13 | 1059    |



# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-8</b>          | <b>Date/Time Sampled: 02/05/2020 08:45</b>  | <b>PSS Sample ID: 20020613-006</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 20:00 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 86              | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:00 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 22:37 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 91                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 22:37 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171829 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Benzene                                           | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 15:46 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-8** **Date/Time Sampled: 02/05/2020 08:45** **PSS Sample ID: 20020613-006**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

|                                | Result    | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|-----------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Dichlorodifluoromethane        | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,4-Dichlorobenzene            | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1-Dichloroethane             | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,2-Dichloroethane             | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| cis-1,2-Dichloroethene         | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1-Dichloroethene             | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,2-Dichloropropane            | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| cis-1,3-Dichloropropene        | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| trans-1,3-Dichloropropene      | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| trans-1,2-Dichloroethene       | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Ethylbenzene                   | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 2-Hexanone (MBK)               | ND        | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Isopropylbenzene               | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Methyl Acetate                 | ND        | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Methylcyclohexane              | ND        | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Methylene chloride             | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND        | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Methyl-t-Butyl Ether           | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Naphthalene                    | <b>16</b> | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Styrene                        | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Tetrachloroethene              | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Toluene                        | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,2,3-Trichlorobenzene         | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,2,4-Trichlorobenzene         | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1,1-Trichloroethane          | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Trichloroethene                | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1,2-Trichloroethane          | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Trichlorofluoromethane         | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| Vinyl chloride                 | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| m&p-Xylene                     | ND        | ug/L  | 2.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |
| o-Xylene                       | ND        | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 15:46 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-8** **Date/Time Sampled: 02/05/2020 08:45** **PSS Sample ID: 20020613-006**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 102      | % | 87-109 | 1 | 02/11/20 | 02/11/20 15:46 | 1011 |
| Dibromofluoromethane | 104      | % | 93-111 | 1 | 02/11/20 | 02/11/20 15:46 | 1011 |
| Toluene-D8           | 103      | % | 91-109 | 1 | 02/11/20 | 02/11/20 15:46 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 4.2    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Carbazole                    | 2.0    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-8** **Date/Time Sampled: 02/05/2020 08:45** **PSS Sample ID: 20020613-006**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | 1.4    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Fluoranthene                | 0.38   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Fluorene                    | 1.6    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Methylnaphthalene         | 1.9    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Naphthalene                 | 7.6    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Phenanthrene                | 1.2    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-8** **Date/Time Sampled: 02/05/2020 08:45** **PSS Sample ID: 20020613-006**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 56              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2-Fluorophenol        | 49              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Nitrobenzene-d5       | 49              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Phenol-d6             | 55              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |
| 2,4,6-Tribromophenol  | 88              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 18:24 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-14</b>         | <b>Date/Time Sampled: 02/05/2020 11:15</b>  | <b>PSS Sample ID: 20020613-007</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | <b>0.84</b>     | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 20:25 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 101             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:25 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | 210                             | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 23:00 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 92                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 23:00 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171829 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Benzene                                           | 49     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Chloroform                                        | 9.1    | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:08 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-14** **Date/Time Sampled: 02/05/2020 11:15** **PSS Sample ID: 20020613-007**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Ethylbenzene                   | 6.4    | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Methyl-t-Butyl Ether           | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Naphthalene                    | 39     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Toluene                        | 5.0    | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| m&p-Xylene                     | 4.0    | ug/L  | 2.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |
| o-Xylene                       | 6.1    | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:08 | 1011    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-14** **Date/Time Sampled: 02/05/2020 11:15** **PSS Sample ID: 20020613-007**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 104      | % | 87-109 | 1 | 02/11/20 | 02/11/20 16:08 | 1011 |
| Dibromofluoromethane | 103      | % | 93-111 | 1 | 02/11/20 | 02/11/20 16:08 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1 | 02/11/20 | 02/11/20 16:08 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 34     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Acenaphthylene               | 2.0    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Anthracene                   | 9.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Benzo(a)anthracene           | 0.41   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Biphenyl (Diphenyl)          | 6.5    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Carbazole                    | 20     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Chlorophenol               | 1.2    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-14** **Date/Time Sampled: 02/05/2020 11:15** **PSS Sample ID: 20020613-007**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | 28     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4-Dichlorophenol          | 7.8    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4-Dimethylphenol          | 0.63   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Fluoranthene                | 6.0    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Fluorene                    | 35     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Methylnaphthalene         | 2.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Methyl phenol             | 0.78   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 3&4-Methylphenol            | 1.7    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Naphthalene                 | 29     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Phenanthrene                | 24     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Pyrene                      | 4.0    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-14** **Date/Time Sampled: 02/05/2020 11:15** **PSS Sample ID: 20020613-007**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4,5-Trichlorophenol | <b>0.70</b>     | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 85              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2-Fluorophenol        | 81              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Nitrobenzene-d5       | 78              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Phenol-d6             | 86              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| Terphenyl-D14         | 91              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |
| 2,4,6-Tribromophenol  | 96              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 18:50 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-15</b>         | <b>Date/Time Sampled: 02/05/2020 12:10</b>  | <b>PSS Sample ID: 20020613-008</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 20:25 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 100             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:25 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 23:24 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 91                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 23:24 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171829 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Benzene                                           | 4.7    | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Chloroform                                        | 5.8    | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:31 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-15** **Date/Time Sampled: 02/05/2020 12:10** **PSS Sample ID: 20020613-008**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

|                                | Result     | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|------------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Dichlorodifluoromethane        | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,4-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,2-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| cis-1,2-Dichloroethene         | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1-Dichloroethene             | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,2-Dichloropropane            | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| cis-1,3-Dichloropropene        | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| trans-1,3-Dichloropropene      | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| trans-1,2-Dichloroethene       | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Ethylbenzene                   | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 2-Hexanone (MBK)               | ND         | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Isopropylbenzene               | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Methyl Acetate                 | ND         | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Methylcyclohexane              | ND         | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Methylene chloride             | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND         | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Methyl-t-Butyl Ether           | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Naphthalene                    | <b>1.5</b> | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Styrene                        | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Tetrachloroethene              | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Toluene                        | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,2,3-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,2,4-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1,1-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Trichloroethene                | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1,2-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Trichlorofluoromethane         | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| Vinyl chloride                 | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| m&p-Xylene                     | ND         | ug/L  | 2.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |
| o-Xylene                       | ND         | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:31 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-15** **Date/Time Sampled: 02/05/2020 12:10** **PSS Sample ID: 20020613-008**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 109      | % | 87-109 | 1 | 02/11/20 | 02/11/20 16:31 | 1011 |
| Dibromofluoromethane | 104      | % | 93-111 | 1 | 02/11/20 | 02/11/20 16:31 | 1011 |
| Toluene-D8           | 103      | % | 91-109 | 1 | 02/11/20 | 02/11/20 16:31 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-15** **Date/Time Sampled: 02/05/2020 12:10** **PSS Sample ID: 20020613-008**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Naphthalene                 | 0.66   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Phenanthrene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-15** **Date/Time Sampled: 02/05/2020 12:10** **PSS Sample ID: 20020613-008**

**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 62              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2-Fluorophenol        | 58              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Nitrobenzene-d5       | 55              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Phenol-d6             | 63              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |
| 2,4,6-Tribromophenol  | 77              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 19:16 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-20</b>         | <b>Date/Time Sampled: 02/05/2020 10:15</b>  | <b>PSS Sample ID: 20020613-009</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 20:50 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 103             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:50 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/10/20 23:47 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 90                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/10/20 23:47 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171829 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Benzene                                           | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Chloroform                                        | 1.3    | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 16:54 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-20** **Date/Time Sampled: 02/05/2020 10:15** **PSS Sample ID: 20020613-009**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Methyl-t-Butyl Ether           | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 16:54 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-20** **Date/Time Sampled: 02/05/2020 10:15** **PSS Sample ID: 20020613-009**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 102      | % | 87-109 | 1 | 02/11/20 | 02/11/20 16:54 | 1011 |
| Dibromofluoromethane | 103      | % | 93-111 | 1 | 02/11/20 | 02/11/20 16:54 | 1011 |
| Toluene-D8           | 101      | % | 91-109 | 1 | 02/11/20 | 02/11/20 16:54 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 0.30   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-20** **Date/Time Sampled: 02/05/2020 10:15** **PSS Sample ID: 20020613-009**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Naphthalene                 | 0.62   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Phenanthrene                | 0.25   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-20** **Date/Time Sampled: 02/05/2020 10:15** **PSS Sample ID: 20020613-009**

**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 86              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2-Fluorophenol        | 80              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Nitrobenzene-d5       | 76              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Phenol-d6             | 83              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| Terphenyl-D14         | 89              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |
| 2,4,6-Tribromophenol  | 89              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 19:42 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-21</b>         | <b>Date/Time Sampled: 02/05/2020 09:15</b>  | <b>PSS Sample ID: 20020613-010</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

LF/DF - Lighter fuel/oil and No. 2/diesel fuel patterns observed in sample.

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | 1.5             | mg/L  | 0.11          | LF   | 1   | 02/07/20 | 02/07/20 20:50 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| o-Terphenyl                     | 102             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 20:50 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | 12,000                          | ug/L  | 100    |      | 1   | 02/10/20                  | 02/11/20 00:10 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 94                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/11/20 00:10 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171790 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Benzene                                           | 71     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Chloromethane                                     | 10     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Cyclohexane                                       | 1,600  | ug/L  | 200                              |      | 20  | 02/10/20                  | 02/11/20 18:24 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 18:29 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-21</b>  | <b>Date/Time Sampled: 02/05/2020 09:15</b>  | <b>PSS Sample ID: 20020613-010</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Volatile Organic Compounds      Analytical Method: SW-846 8260 B      Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| cis-1,2-Dichloroethene         | 4.4    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| trans-1,2-Dichloroethene       | 5.5    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Ethylbenzene                   | 150    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Isopropylbenzene               | 12     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Methylcyclohexane              | 690    | ug/L  | 200 |      | 20  | 02/10/20 | 02/11/20 18:24 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Methyl-t-Butyl Ether           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Naphthalene                    | 3.3    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Tetrachloroethene              | 70     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Toluene                        | 62     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Trichloroethene                | 26     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| m&p-Xylene                     | 240    | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |
| o-Xylene                       | 9.6    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 18:29 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-21** **Date/Time Sampled: 02/05/2020 09:15** **PSS Sample ID: 20020613-010**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |    |          |                |      |  |
|----------------------|----------|---|--------|----|----------|----------------|------|--|
| 4-Bromofluorobenzene | 101      | % | 87-109 | 1  | 02/10/20 | 02/10/20 18:29 | 1011 |  |
| Dibromofluoromethane | 94       | % | 93-111 | 1  | 02/10/20 | 02/10/20 18:29 | 1011 |  |
| Toluene-D8           | 103      | % | 91-109 | 1  | 02/10/20 | 02/10/20 18:29 | 1011 |  |
| 4-Bromofluorobenzene | 106      | % | 87-109 | 20 | 02/11/20 | 02/11/20 18:24 | 1011 |  |
| Dibromofluoromethane | 101      | % | 93-111 | 20 | 02/11/20 | 02/11/20 18:24 | 1011 |  |
| Toluene-D8           | 102      | % | 91-109 | 20 | 02/11/20 | 02/11/20 18:24 | 1011 |  |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Chlorophenol               | 47     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-21</b>  | <b>Date/Time Sampled: 02/05/2020 09:15</b>  | <b>PSS Sample ID: 20020613-010</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Semivolatile Organic Compounds      Analytical Method: SW-846 8270 C      Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Chrysene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Dibenz(a,h)Anthracene       | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4-Dichlorophenol          | 920    | ug/L  | 10   |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4-Dimethylphenol          | 0.61   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Methylnaphthalene         | 0.35   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 3&4-Methylphenol            | 1.1    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Naphthalene                 | 1.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Pentachlorophenol           | 22     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Phenanthrene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-21</b>  | <b>Date/Time Sampled: 02/05/2020 09:15</b>  | <b>PSS Sample ID: 20020613-010</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Semivolatile Organic Compounds      Analytical Method: SW-846 8270 C      Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Phenol                | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Pyrene                | ND              | ug/L  | 0.25          |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4,5-Trichlorophenol | <b>75</b>       | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4,6-Trichlorophenol | <b>3.3</b>      | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 81              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Fluorophenol        | 73              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Nitrobenzene-d5       | 71              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Phenol-d6             | 78              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| Terphenyl-D14         | 88              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2,4,6-Tribromophenol  | 99              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 20:08 | 1059    |
| 2-Fluorobiphenyl      | 85              | %     | 35-107        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| 2-Fluorophenol        | 72              | %     | 32-106        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| Nitrobenzene-d5       | 83              | %     | 34-123        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| Phenol-d6             | 84              | %     | 36-111        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| Terphenyl-D14         | 91              | %     | 43-143        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |
| 2,4,6-Tribromophenol  | 85              | %     | 26-122        |      | 20  | 02/07/20 | 02/12/20 12:38 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MiHpt-22</b>         | <b>Date/Time Sampled: 02/05/2020 08:15</b>  | <b>PSS Sample ID: 20020613-011</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.11          |      | 1   | 02/07/20 | 02/07/20 21:15 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 101             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 21:15 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/11/20 00:33 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 93                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/11/20 00:33 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171829 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Benzene                                           | 33     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/11/20                  | 02/11/20 17:16 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-22** **Date/Time Sampled: 02/05/2020 08:15** **PSS Sample ID: 20020613-011**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Methyl-t-Butyl Ether           | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/11/20 | 02/11/20 17:16 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-22** **Date/Time Sampled: 02/05/2020 08:15** **PSS Sample ID: 20020613-011**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171829 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |  |
|----------------------|----------|---|--------|---|----------|----------------|------|--|
| 4-Bromofluorobenzene | 106      | % | 87-109 | 1 | 02/11/20 | 02/11/20 17:16 | 1011 |  |
| Dibromofluoromethane | 103      | % | 93-111 | 1 | 02/11/20 | 02/11/20 17:16 | 1011 |  |
| Toluene-D8           | 101      | % | 91-109 | 1 | 02/11/20 | 02/11/20 17:16 | 1011 |  |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Anthracene                   | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Carbazole                    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-22** **Date/Time Sampled: 02/05/2020 08:15** **PSS Sample ID: 20020613-011**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Fluoranthene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Fluorene                    | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Naphthalene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Phenanthrene                | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Pyrene                      | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MiHpt-22** **Date/Time Sampled: 02/05/2020 08:15** **PSS Sample ID: 20020613-011**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 74              | %     | 35-107        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2-Fluorophenol        | 72              | %     | 32-106        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Nitrobenzene-d5       | 69              | %     | 34-123        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Phenol-d6             | 75              | %     | 36-111        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| Terphenyl-D14         | 81              | %     | 43-143        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |
| 2,4,6-Tribromophenol  | 81              | %     | 26-122        |      | 1   | 02/07/20 | 02/12/20 11:21 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MW23</b>             | <b>Date/Time Sampled: 02/05/2020 11:40</b>  | <b>PSS Sample ID: 20020613-012</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | ND              | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 21:15 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 106             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 21:15 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/11/20 00:56 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 92                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/11/20 00:56 | 1045    |

|                                                   |        |       |                                  |      |     |                           |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
| Qualifier(s): See Batch 171790 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Benzene                                           | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Carbon Disulfide                                  | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:14 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW23** **Date/Time Sampled: 02/05/2020 11:40** **PSS Sample ID: 20020613-012**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Isopropylbenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Methyl-t-Butyl Ether           | 6.4    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Naphthalene                    | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:14 | 1011    |



## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW23** **Date/Time Sampled: 02/05/2020 11:40** **PSS Sample ID: 20020613-012**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 104      | % | 87-109 | 1 | 02/10/20 | 02/10/20 19:14 | 1011 |
| Dibromofluoromethane | 101      | % | 93-111 | 1 | 02/10/20 | 02/10/20 19:14 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1 | 02/10/20 | 02/10/20 19:14 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 6.8    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Anthracene                   | 0.47   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Carbazole                    | 3.7    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MW23</b>      | <b>Date/Time Sampled: 02/05/2020 11:40</b>  | <b>PSS Sample ID: 20020613-012</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

TCL Semivolatile Organic Compounds      Analytical Method: SW-846 8270 C      Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | 3.7    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Fluoranthene                | 0.77   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Fluorene                    | 3.4    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Naphthalene                 | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Phenanthrene                | 1.5    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Pyrene                      | 0.56   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW23** **Date/Time Sampled: 02/05/2020 11:40** **PSS Sample ID: 20020613-012**

**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 90              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2-Fluorophenol        | 83              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Nitrobenzene-d5       | 80              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Phenol-d6             | 90              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |
| 2,4,6-Tribromophenol  | 94              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 21:51 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                             |                                             |                                    |
|-----------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MW24</b>      | <b>Date/Time Sampled: 02/05/2020 10:40</b>  | <b>PSS Sample ID: 20020613-013</b> |
| <b>Matrix: GROUND WATER</b> | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |

Total Petroleum Hydrocarbons - DRO      Analytical Method: SW-846 8015 C      Preparation Method: SW3510C

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | 0.47            | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 21:40 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| o-Terphenyl                     | 107             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 21:40 | 1070    |

Total Petroleum Hydrocarbons-GRO      Analytical Method: SW-846 8015C      Preparation Method: 5030B

|                                   | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-GRO (Gasoline Range Organics) | ND              | ug/L  | 100           |      | 1   | 02/10/20 | 02/11/20 01:19 | 1045    |
| <b>Surrogate(s)</b>               | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| a,a,a-Trifluorotoluene            | 91              | %     | 64-142        |      | 1   | 02/10/20 | 02/11/20 01:19 | 1045    |

TCL Volatile Organic Compounds      Analytical Method: SW-846 8260 B      Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                             | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| Acetone                     | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Benzene                     | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Bromochloromethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Bromodichloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Bromoform                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Bromomethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 2-Butanone (MEK)            | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Carbon Disulfide            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Carbon tetrachloride        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Chlorobenzene               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Chloroethane                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Chloroform                  | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Chloromethane               | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Cyclohexane                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2-Dibromo-3-chloropropane | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Dibromochloromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2-Dibromoethane           | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2-Dichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW24** **Date/Time Sampled: 02/05/2020 10:40** **PSS Sample ID: 20020613-013**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|--------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Dichlorodifluoromethane        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,4-Dichlorobenzene            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2-Dichloroethane             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| cis-1,2-Dichloroethene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1-Dichloroethene             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2-Dichloropropane            | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| cis-1,3-Dichloropropene        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| trans-1,3-Dichloropropene      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| trans-1,2-Dichloroethene       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Ethylbenzene                   | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 2-Hexanone (MBK)               | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Isopropylbenzene               | 2.8    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Methyl Acetate                 | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Methylcyclohexane              | ND     | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Methylene chloride             | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND     | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Methyl-t-Butyl Ether           | 3.5    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Naphthalene                    | 2.1    | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Styrene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Tetrachloroethene              | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Toluene                        | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2,3-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,2,4-Trichlorobenzene         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1,1-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Trichloroethene                | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1,2-Trichloroethane          | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Trichlorofluoromethane         | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| Vinyl chloride                 | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| m&p-Xylene                     | ND     | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |
| o-Xylene                       | ND     | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:37 | 1011    |



# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW24** **Date/Time Sampled: 02/05/2020 10:40** **PSS Sample ID: 20020613-013**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery |   | Limits |   |          |                |      |
|----------------------|----------|---|--------|---|----------|----------------|------|
| 4-Bromofluorobenzene | 101      | % | 87-109 | 1 | 02/10/20 | 02/10/20 19:37 | 1011 |
| Dibromofluoromethane | 102      | % | 93-111 | 1 | 02/10/20 | 02/10/20 19:37 | 1011 |
| Toluene-D8           | 102      | % | 91-109 | 1 | 02/10/20 | 02/10/20 19:37 | 1011 |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 56     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Acenaphthylene               | 0.38   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Anthracene                   | 7.2    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Benzo(a)anthracene           | 0.25   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Biphenyl (Diphenyl)          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Carbazole                    | 0.79   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW24** **Date/Time Sampled: 02/05/2020 10:40** **PSS Sample ID: 20020613-013**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | 23     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4-Dimethylphenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Fluoranthene                | 6.7    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Fluorene                    | 28     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Methylnaphthalene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Naphthalene                 | 0.98   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Phenanthrene                | 34     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Pyrene                      | 4.3    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW24** **Date/Time Sampled: 02/05/2020 10:40** **PSS Sample ID: 20020613-013**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171837 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 79              | %     | 35-107        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2-Fluorophenol        | 72              | %     | 32-106        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Nitrobenzene-d5       | 74              | %     | 34-123        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Phenol-d6             | 80              | %     | 36-111        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |
| 2,4,6-Tribromophenol  | 94              | %     | 26-122        |      | 1   | 02/07/20 | 02/11/20 20:33 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

|                                    |                                             |                                    |
|------------------------------------|---------------------------------------------|------------------------------------|
| <b>Sample ID: MW25</b>             | <b>Date/Time Sampled: 02/05/2020 09:45</b>  | <b>PSS Sample ID: 20020613-014</b> |
| <b>Matrix: GROUND WATER</b>        | <b>Date/Time Received: 02/06/2020 12:50</b> |                                    |
| Total Petroleum Hydrocarbons - DRO | Analytical Method: SW-846 8015 C            | Preparation Method: SW3510C        |

|                                 | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|---------------------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| TPH-DRO (Diesel Range Organics) | <b>0.26</b>     | mg/L  | 0.10          |      | 1   | 02/07/20 | 02/07/20 21:40 | 1070    |
| <b>Surrogate(s)</b>             | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| <i>o</i> -Terphenyl             | 112             | %     | 38-114        |      | 1   | 02/07/20 | 02/07/20 21:40 | 1070    |

|                                   |                                 |       |        |      |     |                           |                |         |
|-----------------------------------|---------------------------------|-------|--------|------|-----|---------------------------|----------------|---------|
| Total Petroleum Hydrocarbons-GRO  | Analytical Method: SW-846 8015C |       |        |      |     | Preparation Method: 5030B |                |         |
|                                   | Result                          | Units | RL     | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| TPH-GRO (Gasoline Range Organics) | ND                              | ug/L  | 100    |      | 1   | 02/10/20                  | 02/11/20 01:42 | 1045    |
| Surrogate(s)                      | Recovery                        |       | Limits |      |     |                           |                |         |
| a,a,a-Trifluorotoluene            | 92                              | %     | 64-142 |      | 1   | 02/10/20                  | 02/11/20 01:42 | 1045    |

| TCL Volatile Organic Compounds                    |        |       | Analytical Method: SW-846 8260 B |      |     | Preparation Method: 5030B |                |         |
|---------------------------------------------------|--------|-------|----------------------------------|------|-----|---------------------------|----------------|---------|
| Qualifier(s): See Batch 171790 on Case Narrative. |        |       |                                  |      |     |                           |                |         |
|                                                   | Result | Units | RL                               | Flag | Dil | Prepared                  | Analyzed       | Analyst |
| Acetone                                           | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Benzene                                           | 23     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Bromochloromethane                                | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Bromodichloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Bromoform                                         | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Bromomethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| 2-Butanone (MEK)                                  | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Carbon Disulfide                                  | 11     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Carbon tetrachloride                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Chlorobenzene                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Chloroethane                                      | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Chloroform                                        | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Chloromethane                                     | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Cyclohexane                                       | ND     | ug/L  | 10                               |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| 1,2-Dibromo-3-chloropropane                       | ND     | ug/L  | 5.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| Dibromochloromethane                              | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| 1,2-Dibromoethane                                 | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |
| 1,2-Dichlorobenzene                               | ND     | ug/L  | 1.0                              |      | 1   | 02/10/20                  | 02/10/20 19:59 | 1011    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW25** **Date/Time Sampled: 02/05/2020 09:45** **PSS Sample ID: 20020613-014**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

|                                | Result     | Units | RL  | Flag | Dil | Prepared | Analyzed       | Analyst |
|--------------------------------|------------|-------|-----|------|-----|----------|----------------|---------|
| 1,3-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Dichlorodifluoromethane        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,4-Dichlorobenzene            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,2-Dichloroethane             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| cis-1,2-Dichloroethene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1-Dichloroethene             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,2-Dichloropropane            | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| cis-1,3-Dichloropropene        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| trans-1,3-Dichloropropene      | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| trans-1,2-Dichloroethene       | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Ethylbenzene                   | <b>2.3</b> | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 2-Hexanone (MBK)               | ND         | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Isopropylbenzene               | <b>1.3</b> | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Methyl Acetate                 | ND         | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Methylcyclohexane              | ND         | ug/L  | 10  |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Methylene chloride             | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 4-Methyl-2-Pentanone (MIBK)    | ND         | ug/L  | 5.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Methyl-t-Butyl Ether           | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Naphthalene                    | <b>65</b>  | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Styrene                        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1,2,2-Tetrachloroethane      | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Tetrachloroethene              | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Toluene                        | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,2,3-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,2,4-Trichlorobenzene         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1,1-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Trichloroethene                | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1,2-Trichloroethane          | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Trichlorofluoromethane         | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| 1,1,2-Trichlorotrifluoroethane | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| Vinyl chloride                 | ND         | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| m&p-Xylene                     | ND         | ug/L  | 2.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |
| o-Xylene                       | <b>2.1</b> | ug/L  | 1.0 |      | 1   | 02/10/20 | 02/10/20 19:59 | 1011    |



# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW25** **Date/Time Sampled: 02/05/2020 09:45** **PSS Sample ID: 20020613-014**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

Qualifier(s): See Batch 171790 on Case Narrative.

| Surrogate(s)         | Recovery | Limits |   |          |                |      |  |
|----------------------|----------|--------|---|----------|----------------|------|--|
| 4-Bromofluorobenzene | 99 %     | 87-109 | 1 | 02/10/20 | 02/10/20 19:59 | 1011 |  |
| Dibromofluoromethane | 101 %    | 93-111 | 1 | 02/10/20 | 02/10/20 19:59 | 1011 |  |
| Toluene-D8           | 103 %    | 91-109 | 1 | 02/10/20 | 02/10/20 19:59 | 1011 |  |

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                              | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|------------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Acenaphthene                 | 11     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Acenaphthylene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Acetophenone                 | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Anthracene                   | 0.71   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Atrazine                     | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Benzo(a)anthracene           | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Benzo(a)pyrene               | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Benzo(b)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Benzo(g,h,i)perylene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Benzo(k)fluoranthene         | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Biphenyl (Diphenyl)          | 1.3    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Butyl benzyl phthalate       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| bis(2-chloroethoxy) methane  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| bis(2-chloroethyl) ether     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| bis(2-chloroisopropyl) ether | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| bis(2-ethylhexyl) phthalate  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Bromophenylphenyl ether    | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Di-n-butyl phthalate         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Carbazole                    | 5.8    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Caprolactam                  | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Chloro-3-methyl phenol     | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Chloroaniline              | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Chloronaphthalene          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Chlorophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Chlorophenyl Phenyl ether  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Chrysene                     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Dibenz(a,h)Anthracene        | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |

# Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW25** **Date/Time Sampled: 02/05/2020 09:45** **PSS Sample ID: 20020613-014**  
**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                             | Result | Units | RL   | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------------|--------|-------|------|------|-----|----------|----------------|---------|
| Dibenzofuran                | 3.7    | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 3,3-Dichlorobenzidine       | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4-Dichlorophenol          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Diethyl phthalate           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Dimethyl phthalate          | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4-Dimethylphenol          | 0.54   | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4,6-Dinitro-2-methyl phenol | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4-Dinitrophenol           | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,6-Dinitrotoluene          | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Fluoranthene                | 1.1    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Fluorene                    | 5.3    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Hexachlorobenzene           | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Hexachlorobutadiene         | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Hexachlorocyclopentadiene   | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Hexachloroethane            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Indeno(1,2,3-c,d)Pyrene     | ND     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Isophorone                  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Methylnaphthalene         | 3.5    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Methyl phenol             | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 3&4-Methylphenol            | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Naphthalene                 | 35     | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 3-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Nitroaniline              | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Nitrobenzene                | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Nitrophenol               | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 4-Nitrophenol               | ND     | ug/L  | 5.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| N-Nitrosodi-n-propyl amine  | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| N-Nitrosodiphenylamine      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Di-n-octyl phthalate        | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Pentachlorophenol           | ND     | ug/L  | 2.0  |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Phenanthrene                | 5.7    | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Phenol                      | ND     | ug/L  | 0.50 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Pyrene                      | 0.70   | ug/L  | 0.25 |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |

## Certificate of Analysis

Project Name: RTN  
PSS Project No.: 20020613

**Sample ID: MW25** **Date/Time Sampled: 02/05/2020 09:45** **PSS Sample ID: 20020613-014**

**Matrix: GROUND WATER** **Date/Time Received: 02/06/2020 12:50**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 171843 on Case Narrative.

|                       | Result          | Units | RL            | Flag | Dil | Prepared | Analyzed       | Analyst |
|-----------------------|-----------------|-------|---------------|------|-----|----------|----------------|---------|
| Pyridine              | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4,5-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4,6-Trichlorophenol | ND              | ug/L  | 0.50          |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| <b>Surrogate(s)</b>   | <b>Recovery</b> |       | <b>Limits</b> |      |     |          |                |         |
| 2-Fluorobiphenyl      | 83              | %     | 35-107        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2-Fluorophenol        | 78              | %     | 32-106        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Nitrobenzene-d5       | 88              | %     | 34-123        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Phenol-d6             | 86              | %     | 36-111        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| Terphenyl-D14         | 90              | %     | 43-143        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |
| 2,4,6-Tribromophenol  | 92              | %     | 26-122        |      | 1   | 02/07/20 | 02/12/20 10:55 | 1059    |

Project Name: RTN

PSS Project No.: 20020613

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Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

**Sample Receipt:**

All sample receipt conditions were acceptable.

**Analytical:**

**TCL Volatile Organic Compounds**

**Batch: 171790**

Method exceedance: Laboratory control sample exceedances identified, matrix spike/ matrix spike duplicate samples meet LCS criteria; see QC summary.

**Batch: 171829**

Matrix spike/matrix spike duplicate (MS/MSD) and/or Relative Percent Difference (RPD) exceedances identified; see QC summary.

**Analytical:**

**TCL Semivolatile Organic Compounds**

**Batch: 171837**

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) exceedances identified; see QC summary. Exceedances meet marginal exceedance criteria.

**Batch: 171843**

The continuing calibration verification (CCV-01) had a recovery outside the control limits of 80-120% for Benzo(k)fluoranthene at 76%.

**NELAP accreditation was held for all analyses performed unless noted below. See [www.phaseonline.com](http://www.phaseonline.com) for complete PSS scope of accreditation.**

Project Name: RTN  
PSS Project No.: 20020613

| Method               | Client Sample ID | Analysis Type | PSS Sample ID  | Mtx | Prep Batch | Analytical Batch | Prepared         | Analyzed         |
|----------------------|------------------|---------------|----------------|-----|------------|------------------|------------------|------------------|
| <b>SW-846 8015 C</b> | TEC-MW2          | Initial       | 20020613-001   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 18:45 |
|                      | TEC-MW4          | Initial       | 20020613-002   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 19:10 |
|                      | MiHpt-5          | Initial       | 20020613-004   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 19:35 |
|                      | MiHpt-8          | Initial       | 20020613-006   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 20:00 |
|                      | MiHpt-15         | Initial       | 20020613-008   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 20:25 |
|                      | MiHpt-21         | Initial       | 20020613-010   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 20:50 |
|                      | MW23             | Initial       | 20020613-012   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 21:15 |
|                      | MW25             | Initial       | 20020613-014   | W   | 80277      | 171769           | 02/07/2020 09:26 | 02/07/2020 21:40 |
|                      | ECS-MW4          | Initial       | 20020613-003   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 19:35 |
|                      | MiHpt-7          | Initial       | 20020613-005   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 20:00 |
|                      | MiHpt-14         | Initial       | 20020613-007   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 20:25 |
|                      | MiHpt-20         | Initial       | 20020613-009   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 20:50 |
|                      | MiHpt-22         | Initial       | 20020613-011   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 21:15 |
|                      | MW24             | Initial       | 20020613-013   | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 21:40 |
|                      | 80277-1-BKS      | BKS           | 80277-1-BKS    | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 18:45 |
|                      | 80277-1-BLK      | BLK           | 80277-1-BLK    | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 18:20 |
|                      | 80277-1-BSD      | BSD           | 80277-1-BSD    | W   | 80277      | 171770           | 02/07/2020 09:26 | 02/07/2020 19:10 |
| <b>SW-846 8015C</b>  | TEC-MW2          | Initial       | 20020613-001   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 20:42 |
|                      | TEC-MW4          | Initial       | 20020613-002   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 21:05 |
|                      | ECS-MW4          | Initial       | 20020613-003   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 21:28 |
|                      | MiHpt-5          | Initial       | 20020613-004   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 21:51 |
|                      | MiHpt-7          | Initial       | 20020613-005   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 22:14 |
|                      | MiHpt-8          | Initial       | 20020613-006   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 22:37 |
|                      | MiHpt-14         | Initial       | 20020613-007   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 23:00 |
|                      | MiHpt-15         | Initial       | 20020613-008   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 23:24 |
|                      | MiHpt-20         | Initial       | 20020613-009   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 23:47 |
|                      | MiHpt-21         | Initial       | 20020613-010   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/11/2020 00:10 |
|                      | MiHpt-22         | Initial       | 20020613-011   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/11/2020 00:33 |
|                      | MW23             | Initial       | 20020613-012   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/11/2020 00:56 |
|                      | MW24             | Initial       | 20020613-013   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/11/2020 01:19 |
|                      | MW25             | Initial       | 20020613-014   | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/11/2020 01:42 |
|                      | 80310-2-BKS      | BKS           | 80310-2-BKS    | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 16:06 |
|                      | 80310-2-BLK      | BLK           | 80310-2-BLK    | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 18:01 |
|                      | 80310-2-BSD      | BSD           | 80310-2-BSD    | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 16:29 |
|                      | OF-021 S         | MS            | 20020707-002 S | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 16:52 |
|                      | OF-021 SD        | MSD           | 20020707-002 S | W   | 80310      | 171791           | 02/10/2020 15:43 | 02/10/2020 17:15 |
| <b>SW-846 8260 B</b> | TEC-MW2          | Initial       | 20020613-001   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 15:05 |
|                      | TEC-MW4          | Initial       | 20020613-002   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 15:28 |
|                      | ECS-MW4          | Initial       | 20020613-003   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 15:51 |
|                      | MiHpt-5          | Initial       | 20020613-004   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 16:13 |
|                      | MiHpt-7          | Initial       | 20020613-005   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 16:36 |
|                      | MiHpt-21         | Initial       | 20020613-010   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 18:29 |
|                      | MW23             | Initial       | 20020613-012   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 19:14 |
|                      | MW24             | Initial       | 20020613-013   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 19:37 |
|                      | MW25             | Initial       | 20020613-014   | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 19:59 |



Project Name: RTN  
PSS Project No.: 20020613

| Method               | Client Sample ID | Analysis Type | PSS Sample ID  | Mtx | Prep Batch | Analytical Batch | Prepared         | Analyzed         |
|----------------------|------------------|---------------|----------------|-----|------------|------------------|------------------|------------------|
| <b>SW-846 8260 B</b> | 80306-1-BKS      | BKS           | 80306-1-BKS    | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 10:57 |
|                      | 80306-1-BLK      | BLK           | 80306-1-BLK    | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 12:28 |
|                      | TEC-MW2 S        | MS            | 20020613-001 S | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 21:07 |
|                      | TEC-MW2 SD       | MSD           | 20020613-001 S | W   | 80306      | 171790           | 02/10/2020 10:02 | 02/10/2020 21:30 |
|                      | MiHpt-8          | Initial       | 20020613-006   | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 15:46 |
|                      | MiHpt-14         | Initial       | 20020613-007   | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 16:08 |
|                      | MiHpt-15         | Initial       | 20020613-008   | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 16:31 |
|                      | MiHpt-20         | Initial       | 20020613-009   | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 16:54 |
|                      | MiHpt-22         | Initial       | 20020613-011   | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 17:16 |
|                      | 80323-1-BKS      | BKS           | 80323-1-BKS    | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 12:45 |
|                      | 80323-1-BLK      | BLK           | 80323-1-BLK    | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 14:15 |
|                      | MiHpt-8 S        | MS            | 20020613-006 S | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 19:32 |
|                      | MiHpt-8 SD       | MSD           | 20020613-006 S | W   | 80323      | 171829           | 02/11/2020 11:41 | 02/11/2020 19:55 |
|                      | MiHpt-5          | Reanalysis    | 20020613-004   | W   | 80306      | 171829           | 02/10/2020 10:02 | 02/11/2020 17:39 |
|                      | MiHpt-7          | Reanalysis    | 20020613-005   | W   | 80306      | 171829           | 02/10/2020 10:02 | 02/11/2020 18:02 |
|                      | MiHpt-21         | Reanalysis    | 20020613-010   | W   | 80306      | 171829           | 02/10/2020 10:02 | 02/11/2020 18:24 |
| <b>SW-846 8270 C</b> | TEC-MW2          | Initial       | 20020613-001   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 16:15 |
|                      | TEC-MW4          | Initial       | 20020613-002   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 16:41 |
|                      | ECS-MW4          | Initial       | 20020613-003   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 17:07 |
|                      | MiHpt-5          | Initial       | 20020613-004   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 17:33 |
|                      | MiHpt-7          | Initial       | 20020613-005   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 17:58 |
|                      | MiHpt-8          | Initial       | 20020613-006   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 18:24 |
|                      | MiHpt-14         | Initial       | 20020613-007   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 18:50 |
|                      | MiHpt-15         | Initial       | 20020613-008   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 19:16 |
|                      | MiHpt-20         | Initial       | 20020613-009   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 19:42 |
|                      | MiHpt-21         | Initial       | 20020613-010   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 20:08 |
|                      | MW23             | Initial       | 20020613-012   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 21:51 |
|                      | MW24             | Initial       | 20020613-013   | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 20:33 |
|                      | 80276-1-BKS      | BKS           | 80276-1-BKS    | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 12:48 |
|                      | 80276-1-BLK      | BLK           | 80276-1-BLK    | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 11:31 |
|                      | 80276-1-BSD      | BSD           | 80276-1-BSD    | W   | 80276      | 171837           | 02/07/2020 08:11 | 02/11/2020 13:14 |
|                      | MiHpt-22         | Initial       | 20020613-011   | W   | 80276      | 171843           | 02/07/2020 08:11 | 02/12/2020 11:21 |
|                      | MW25             | Initial       | 20020613-014   | W   | 80276      | 171843           | 02/07/2020 08:11 | 02/12/2020 10:55 |
|                      | MiHpt-5          | Reanalysis    | 20020613-004   | W   | 80276      | 171843           | 02/07/2020 08:11 | 02/12/2020 11:47 |
|                      | MiHpt-7          | Reanalysis    | 20020613-005   | W   | 80276      | 171843           | 02/07/2020 08:11 | 02/12/2020 12:13 |
|                      | MiHpt-21         | Reanalysis    | 20020613-010   | W   | 80276      | 171843           | 02/07/2020 08:11 | 02/12/2020 12:38 |

## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8015 C

Seq Number: 171770

MB Sample Id: 80277-1-BLK

Matrix: Water

LCS Sample Id: 80277-1-BKS

Prep Method: SW3510C

Date Prep: 02/07/20

LCSD Sample Id: 80277-1-BSD

| Parameter                       | MB<br>Result | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | LCSD<br>Result | LCSD<br>%Rec | Limits | %RPD  | RPD<br>Limit | Units | Flag |
|---------------------------------|--------------|-----------------|---------------|-------------|----------------|--------------|--------|-------|--------------|-------|------|
| TPH-DRO (Diesel Range Organics) | <0.1000      | 1.000           | 0.9992        | 100         | 0.8399         | 84           | 53-113 | 17    | 21           | mg/L  |      |
| Surrogate                       | MB<br>%Rec   | MB<br>Flag      | LCS<br>Result | LCS<br>Flag | LCSD<br>Result | LCSD<br>Flag | Limits | Units |              |       |      |
| o-Terphenyl                     | 80           |                 | 100           |             | 86             |              | 38-114 | %     |              |       |      |

## QC Summary

Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8270 C

Seq Number: 171837

MB Sample Id: 80276-1-BLK

Matrix: Water

LCS Sample Id: 80276-1-BKS

Prep Method: SW3510C

Date Prep: 02/07/20

LCSD Sample Id: 80276-1-BSD

| Parameter                    | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|------------------------------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|------|
| Acenaphthene                 | <0.2500   | 40.00        | 35.61      | 89       | 35.73       | 89        | 67-110 | 0    | 20        | ug/L  |      |
| Acenaphthylene               | <0.2500   | 40.00        | 36.11      | 90       | 36.17       | 90        | 69-106 | 0    | 20        | ug/L  |      |
| Acetophenone                 | <0.5000   | 40.00        | 36.85      | 92       | 38.56       | 96        | 67-107 | 4    | 20        | ug/L  |      |
| Anthracene                   | <0.2500   | 40.00        | 36.46      | 91       | 38.56       | 96        | 79-108 | 5    | 20        | ug/L  |      |
| Atrazine                     | <2.000    | 40.00        | 37.08      | 93       | 35.87       | 90        | 17-98  | 3    | 20        | ug/L  |      |
| Benzo(a)anthracene           | <0.2500   | 40.00        | 37.15      | 93       | 36.39       | 91        | 76-109 | 2    | 20        | ug/L  |      |
| Benzo(a)pyrene               | <0.2500   | 40.00        | 31.53      | 79       | 31.83       | 80        | 76-114 | 1    | 20        | ug/L  |      |
| Benzo(b)fluoranthene         | <0.2500   | 40.00        | 33.32      | 83       | 30.11       | 75        | 67-121 | 10   | 20        | ug/L  |      |
| Benzo(g,h,i)perylene         | <0.2500   | 40.00        | 30.01      | 75       | 30.06       | 75        | 75-107 | 0    | 20        | ug/L  |      |
| Benzo(k)fluoranthene         | <0.2500   | 40.00        | 25.58      | 64       | 29.31       | 73        | 62-132 | 13   | 20        | ug/L  |      |
| Biphenyl (Diphenyl)          | <0.5000   | 40.00        | 36.54      | 91       | 37.87       | 95        | 71-108 | 4    | 20        | ug/L  |      |
| Butyl benzyl phthalate       | <0.5000   | 40.00        | 40.24      | 101      | 40.78       | 102       | 74-117 | 1    | 20        | ug/L  |      |
| bis(2-chloroethoxy) methane  | <0.5000   | 40.00        | 41.30      | 103      | 40.22       | 101       | 69-111 | 2    | 20        | ug/L  |      |
| bis(2-chloroethyl) ether     | <0.5000   | 40.00        | 37.12      | 93       | 37.78       | 94        | 62-103 | 1    | 20        | ug/L  |      |
| bis(2-chloroisopropyl) ether | <0.5000   | 40.00        | 37.72      | 94       | 38.77       | 97        | 50-103 | 3    | 20        | ug/L  |      |
| bis(2-ethylhexyl) phthalate  | <0.5000   | 40.00        | 41.14      | 103      | 40.84       | 102       | 78-114 | 1    | 20        | ug/L  |      |
| 4-Bromophenylphenyl ether    | <0.5000   | 40.00        | 43.40      | 109      | 42.86       | 107       | 82-108 | 2    | 20        | ug/L  | H    |
| Di-n-butyl phthalate         | <0.5000   | 40.00        | 41.66      | 104      | 42.25       | 106       | 71-115 | 2    | 20        | ug/L  |      |
| Carbazole                    | <0.5000   | 40.00        | 35.30      | 88       | 30.43       | 76        | 52-134 | 15   | 20        | ug/L  |      |
| Caprolactam                  | <2.000    | 40.00        | 31.39      | 78       | 33.79       | 84        | 50-125 | 7    | 20        | ug/L  |      |
| 4-Chloro-3-methyl phenol     | <0.5000   | 40.00        | 37.47      | 94       | 36.78       | 92        | 72-121 | 2    | 20        | ug/L  |      |
| 4-Chloroaniline              | <0.5000   | 40.00        | 32.79      | 82       | 32.20       | 81        | 54-103 | 1    | 20        | ug/L  |      |
| 2-Chloronaphthalene          | <0.5000   | 40.00        | 37.67      | 94       | 38.18       | 95        | 66-105 | 1    | 20        | ug/L  |      |
| 2-Chlorophenol               | <0.5000   | 40.00        | 35.38      | 88       | 36.43       | 91        | 63-109 | 3    | 20        | ug/L  |      |
| 4-Chlorophenyl Phenyl ether  | <0.5000   | 40.00        | 40.67      | 102      | 40.46       | 101       | 73-100 | 1    | 20        | ug/L  | H    |
| Chrysene                     | <0.2500   | 40.00        | 38.11      | 95       | 37.02       | 93        | 78-111 | 2    | 20        | ug/L  |      |
| Dibenz(a,h)Anthracene        | <0.2500   | 40.00        | 31.65      | 79       | 30.57       | 76        | 76-106 | 4    | 20        | ug/L  |      |
| Dibenzofuran                 | <0.5000   | 40.00        | 37.97      | 95       | 37.40       | 94        | 70-111 | 1    | 20        | ug/L  |      |
| 3,3-Dichlorobenzidine        | <0.5000   | 40.00        | 38.13      | 95       | 36.56       | 91        | 79-132 | 4    | 20        | ug/L  |      |
| 2,4-Dichlorophenol           | <0.5000   | 40.00        | 37.74      | 94       | 36.78       | 92        | 65-118 | 2    | 20        | ug/L  |      |
| Diethyl phthalate            | <0.5000   | 40.00        | 40.30      | 101      | 40.49       | 101       | 60-114 | 0    | 20        | ug/L  |      |
| Dimethyl phthalate           | <0.5000   | 40.00        | 38.69      | 97       | 38.64       | 97        | 66-107 | 0    | 20        | ug/L  |      |
| 2,4-Dimethylphenol           | <0.5000   | 40.00        | 36.11      | 90       | 35.97       | 90        | 60-119 | 0    | 20        | ug/L  |      |
| 4,6-Dinitro-2-methyl phenol  | <5.000    | 40.00        | 45.89      | 115      | 42.52       | 106       | 60-130 | 8    | 20        | ug/L  |      |
| 2,4-Dinitrophenol            | <5.000    | 40.00        | 43.02      | 108      | 38.75       | 97        | 36-136 | 11   | 20        | ug/L  |      |
| 2,4-Dinitrotoluene           | <2.000    | 40.00        | 41.34      | 103      | 39.31       | 98        | 70-119 | 5    | 20        | ug/L  |      |
| 2,6-Dinitrotoluene           | <2.000    | 40.00        | 40.20      | 101      | 39.04       | 98        | 68-117 | 3    | 20        | ug/L  |      |
| Fluoranthene                 | <0.2500   | 40.00        | 40.59      | 101      | 40.75       | 102       | 79-112 | 1    | 20        | ug/L  |      |
| Fluorene                     | <0.2500   | 40.00        | 38.77      | 97       | 38.62       | 97        | 71-109 | 0    | 20        | ug/L  |      |
| Hexachlorobenzene            | <0.5000   | 40.00        | 40.23      | 101      | 40.50       | 101       | 76-110 | 0    | 20        | ug/L  |      |
| Hexachlorobutadiene          | <0.5000   | 40.00        | 36.26      | 91       | 36.85       | 92        | 64-113 | 1    | 20        | ug/L  |      |
| Hexachlorocyclopentadiene    | <2.000    | 40.00        | 43.42      | 109      | 39.65       | 99        | 49-124 | 10   | 20        | ug/L  |      |
| Hexachloroethane             | <0.5000   | 40.00        | 37.82      | 95       | 38.22       | 96        | 62-105 | 1    | 20        | ug/L  |      |
| Indeno(1,2,3-c,d)Pyrene      | <0.2500   | 40.00        | 33.62      | 84       | 31.99       | 80        | 69-120 | 5    | 20        | ug/L  |      |
| Isophorone                   | <0.5000   | 40.00        | 35.20      | 88       | 34.63       | 87        | 68-108 | 1    | 20        | ug/L  |      |
| 2-Methylnaphthalene          | <0.2500   | 40.00        | 34.78      | 87       | 35.21       | 88        | 64-117 | 1    | 20        | ug/L  |      |
| 2-Methyl phenol              | <0.5000   | 40.00        | 36.76      | 92       | 37.87       | 95        | 67-111 | 3    | 20        | ug/L  |      |
| 3&4-Methylphenol             | <0.5000   | 40.00        | 38.18      | 95       | 38.96       | 97        | 67-107 | 2    | 20        | ug/L  |      |
| Naphthalene                  | <0.2500   | 40.00        | 36.04      | 90       | 37.21       | 93        | 65-103 | 3    | 20        | ug/L  |      |
| 2-Nitroaniline               | <2.000    | 40.00        | 37.53      | 94       | 35.86       | 90        | 59-114 | 4    | 20        | ug/L  |      |
| 3-Nitroaniline               | <2.000    | 40.00        | 36.24      | 91       | 34.91       | 87        | 60-109 | 4    | 20        | ug/L  |      |

## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8270 C

Seq Number: 171837

MB Sample Id: 80276-1-BLK

Matrix: Water

LCS Sample Id: 80276-1-BKS

Prep Method: SW3510C

Date Prep: 02/07/20

LCSD Sample Id: 80276-1-BSD

| Parameter                  | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|----------------------------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|------|
| 4-Nitroaniline             | <2.000    | 40.00        | 38.23      | 96       | 35.99       | 90        | 51-125 | 6    | 20        | ug/L  |      |
| Nitrobenzene               | <0.5000   | 40.00        | 34.67      | 87       | 33.82       | 85        | 60-107 | 2    | 20        | ug/L  |      |
| 2-Nitrophenol              | <0.5000   | 40.00        | 36.60      | 92       | 35.51       | 89        | 65-119 | 3    | 20        | ug/L  |      |
| 4-Nitrophenol              | <5.000    | 40.00        | 38.96      | 97       | 37.29       | 93        | 46-121 | 4    | 20        | ug/L  |      |
| N-Nitrosodi-n-propyl amine | <0.5000   | 40.00        | 40.83      | 102      | 39.25       | 98        | 60-98  | 4    | 20        | ug/L  | H    |
| N-Nitrosodiphenylamine     | <0.5000   | 40.00        | 40.98      | 102      | 40.59       | 101       | 68-106 | 1    | 20        | ug/L  |      |
| Di-n-octyl phthalate       | <2.000    | 40.00        | 29.59      | 74       | 31.91       | 80        | 69-120 | 8    | 20        | ug/L  |      |
| Pentachlorophenol          | <2.000    | 40.00        | 43.87      | 110      | 40.30       | 101       | 63-119 | 9    | 20        | ug/L  |      |
| Phenanthrene               | <0.2500   | 40.00        | 40.65      | 102      | 37.99       | 95        | 73-109 | 7    | 20        | ug/L  |      |
| Phenol                     | <0.5000   | 40.00        | 35.41      | 89       | 37.29       | 93        | 65-110 | 4    | 20        | ug/L  |      |
| Pyrene                     | <0.2500   | 40.00        | 39.79      | 99       | 38.45       | 96        | 78-111 | 3    | 20        | ug/L  |      |
| Pyridine                   | <0.5000   | 40.00        | 29.69      | 74       | 31.00       | 78        | 47-105 | 5    | 20        | ug/L  |      |
| 2,4,5-Trichlorophenol      | <0.5000   | 40.00        | 36.91      | 92       | 35.92       | 90        | 69-114 | 2    | 20        | ug/L  |      |
| 2,4,6-Trichlorophenol      | <0.5000   | 40.00        | 39.90      | 100      | 37.77       | 94        | 68-118 | 6    | 20        | ug/L  |      |

| Surrogate            | MB %Rec | MB Flag | LCS Result | LCS Flag | LCSD Result | LCSD Flag | Limits | Units |
|----------------------|---------|---------|------------|----------|-------------|-----------|--------|-------|
| 2-Fluorobiphenyl     | 86      |         | 94         |          | 90          |           | 35-107 | %     |
| 2-Fluorophenol       | 78      |         | 84         |          | 87          |           | 32-106 | %     |
| Nitrobenzene-d5      | 77      |         | 85         |          | 82          |           | 34-123 | %     |
| Phenol-d6            | 87      |         | 90         |          | 91          |           | 36-111 | %     |
| Terphenyl-D14        | 90      |         | 95         |          | 89          |           | 43-143 | %     |
| 2,4,6-Tribromophenol | 93      |         | 105        |          | 98          |           | 26-122 | %     |

### Analytical Method: SW-846 8015C

Seq Number: 171791

MB Sample Id: 80310-2-BLK

Matrix: Water

LCS Sample Id: 80310-2-BKS

Prep Method: SW5030

Date Prep: 02/10/20

LCSD Sample Id: 80310-2-BSD

| Parameter                        | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|----------------------------------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|------|
| TPH-GRO (Gasoline Range Organic: | <100      | 5000         | 4700       | 94       | 4700        | 94        | 58-141 | 0    | 20        | ug/L  |      |

| Surrogate              | MB %Rec | MB Flag | LCS Result | LCS Flag | LCSD Result | LCSD Flag | Limits | Units |
|------------------------|---------|---------|------------|----------|-------------|-----------|--------|-------|
| a,a,a-Trifluorotoluene | 91      |         | 97         |          | 100         |           | 64-142 | %     |

## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171790

Matrix: Water

Prep Method: SW5030B

Date Prep: 02/10/20

MB Sample Id: 80306-1-BLK

LCS Sample Id: 80306-1-BKS

| Parameter                      | MB Result | Spike Amount | LCS Result | LCS %Rec | Limits | Units | Flag |
|--------------------------------|-----------|--------------|------------|----------|--------|-------|------|
| Acetone                        | <5.000    | 50.00        | 35.99      | 72       | 55-120 | ug/L  |      |
| Benzene                        | <1.000    | 50.00        | 42.73      | 85       | 87-123 | ug/L  | L    |
| Bromochloromethane             | <1.000    | 50.00        | 42.95      | 86       | 74-136 | ug/L  |      |
| Bromodichloromethane           | <1.000    | 50.00        | 46.90      | 94       | 83-125 | ug/L  |      |
| Bromoform                      | <1.000    | 50.00        | 40.11      | 80       | 72-129 | ug/L  |      |
| Bromomethane                   | <1.000    | 50.00        | 45.27      | 91       | 45-167 | ug/L  |      |
| 2-Butanone (MEK)               | <5.000    | 50.00        | 34.52      | 69       | 45-136 | ug/L  |      |
| Carbon Disulfide               | <1.000    | 50.00        | 46.04      | 92       | 87-123 | ug/L  |      |
| Carbon tetrachloride           | <1.000    | 50.00        | 47.18      | 94       | 79-133 | ug/L  |      |
| Chlorobenzene                  | <1.000    | 50.00        | 40.02      | 80       | 87-127 | ug/L  | L    |
| Chloroethane                   | <1.000    | 50.00        | 42.77      | 86       | 81-122 | ug/L  |      |
| Chloroform                     | <1.000    | 50.00        | 44.59      | 89       | 76-129 | ug/L  |      |
| Chloromethane                  | <1.000    | 50.00        | 50.00      | 100      | 59-121 | ug/L  |      |
| Cyclohexane                    | <10.00    | 50.00        | 44.83      | 90       | 83-122 | ug/L  |      |
| 1,2-Dibromo-3-chloropropane    | <5.000    | 50.00        | 35.88      | 72       | 63-140 | ug/L  |      |
| Dibromochloromethane           | <1.000    | 50.00        | 40.33      | 81       | 73-139 | ug/L  |      |
| 1,2-Dibromoethane              | <1.000    | 50.00        | 40.01      | 80       | 80-127 | ug/L  |      |
| 1,2-Dichlorobenzene            | <1.000    | 50.00        | 38.09      | 76       | 82-129 | ug/L  | L    |
| 1,3-Dichlorobenzene            | <1.000    | 50.00        | 38.27      | 77       | 88-127 | ug/L  | L    |
| Dichlorodifluoromethane        | <1.000    | 50.00        | 51.11      | 102      | 70-131 | ug/L  |      |
| 1,4-Dichlorobenzene            | <1.000    | 50.00        | 37.23      | 74       | 84-129 | ug/L  | L    |
| 1,1-Dichloroethane             | <1.000    | 50.00        | 44.07      | 88       | 85-120 | ug/L  |      |
| 1,2-Dichloroethane             | <1.000    | 50.00        | 45.62      | 91       | 86-125 | ug/L  |      |
| cis-1,2-Dichloroethene         | <1.000    | 50.00        | 42.79      | 86       | 86-126 | ug/L  |      |
| 1,1-Dichloroethene             | <1.000    | 50.00        | 43.38      | 87       | 85-123 | ug/L  |      |
| 1,2-Dichloropropane            | <1.000    | 50.00        | 43.91      | 88       | 83-120 | ug/L  |      |
| cis-1,3-Dichloropropene        | <1.000    | 50.00        | 43.29      | 87       | 81-125 | ug/L  |      |
| trans-1,3-Dichloropropene      | <1.000    | 50.00        | 43.55      | 87       | 79-121 | ug/L  |      |
| trans-1,2-Dichloroethene       | <1.000    | 50.00        | 45.54      | 91       | 87-120 | ug/L  |      |
| Ethylbenzene                   | <1.000    | 50.00        | 42.59      | 85       | 82-128 | ug/L  |      |
| 2-Hexanone (MBK)               | <5.000    | 50.00        | 37.61      | 75       | 56-116 | ug/L  |      |
| Isopropylbenzene               | <1.000    | 50.00        | 40.60      | 81       | 81-128 | ug/L  |      |
| Methyl Acetate                 | <10.00    | 50.00        | 44.39      | 89       | 68-129 | ug/L  |      |
| Methylcyclohexane              | <10.00    | 50.00        | 45.27      | 91       | 84-127 | ug/L  |      |
| Methylene chloride             | <1.000    | 50.00        | 46.10      | 92       | 85-119 | ug/L  |      |
| 4-Methyl-2-Pentanone (MIBK)    | <5.000    | 50.00        | 39.50      | 79       | 57-116 | ug/L  |      |
| Methyl-t-Butyl Ether           | <1.000    | 50.00        | 43.87      | 88       | 61-130 | ug/L  |      |
| Naphthalene                    | <1.000    | 50.00        | 36.36      | 73       | 74-114 | ug/L  | L    |
| Styrene                        | <1.000    | 50.00        | 40.47      | 81       | 76-130 | ug/L  |      |
| 1,1,2,2-Tetrachloroethane      | <1.000    | 50.00        | 34.33      | 69       | 79-131 | ug/L  | L    |
| Tetrachloroethene              | <1.000    | 50.00        | 43.91      | 88       | 85-131 | ug/L  |      |
| Toluene                        | <1.000    | 50.00        | 43.50      | 87       | 82-127 | ug/L  |      |
| 1,2,3-Trichlorobenzene         | <1.000    | 50.00        | 39.68      | 79       | 79-123 | ug/L  |      |
| 1,2,4-Trichlorobenzene         | <1.000    | 50.00        | 40.52      | 81       | 78-123 | ug/L  |      |
| 1,1,1-Trichloroethane          | <1.000    | 50.00        | 45.39      | 91       | 87-125 | ug/L  |      |
| Trichloroethene                | <1.000    | 50.00        | 43.58      | 87       | 87-124 | ug/L  |      |
| 1,1,2-Trichloroethane          | <1.000    | 50.00        | 42.68      | 85       | 84-127 | ug/L  |      |
| Trichlorofluoromethane         | <1.000    | 50.00        | 44.13      | 88       | 85-130 | ug/L  |      |
| 1,1,2-Trichlorotrifluoroethane | <1.000    | 50.00        | 47.01      | 94       | 81-132 | ug/L  |      |
| Vinyl chloride                 | <1.000    | 50.00        | 50.46      | 101      | 66-133 | ug/L  |      |
| m&p-Xylene                     | <2.000    | 100          | 86.34      | 86       | 78-126 | ug/L  |      |



## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171790

Matrix: Water

Prep Method: SW5030B

Date Prep: 02/10/20

MB Sample Id: 80306-1-BLK

LCS Sample Id: 80306-1-BKS

| Parameter            | MB<br>Result | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | Limits | Units | Flag |
|----------------------|--------------|-----------------|---------------|-------------|--------|-------|------|
| o-Xylene             | <1.000       | 50.00           | 43.38         | 87          | 75-130 | ug/L  |      |
| Surrogate            | MB<br>%Rec   | MB<br>Flag      | LCS<br>Result | LCS<br>Flag | Limits | Units |      |
| 4-Bromofluorobenzene | 98           |                 | 96            |             | 87-109 | %     |      |
| Dibromofluoromethane | 102          |                 | 100           |             | 93-111 | %     |      |
| Toluene-D8           | 103          |                 | 106           |             | 91-109 | %     |      |

## QC Summary

Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171829

Matrix: Water

Prep Method: SW5030B

Date Prep: 02/11/20

MB Sample Id: 80323-1-BLK

LCS Sample Id: 80323-1-BKS

| Parameter                      | MB Result | Spike Amount | LCS Result | LCS %Rec | Limits | Units | Flag |
|--------------------------------|-----------|--------------|------------|----------|--------|-------|------|
| Acetone                        | <5.000    | 50.00        | 47.27      | 95       | 55-120 | ug/L  |      |
| Benzene                        | <1.000    | 50.00        | 48.90      | 98       | 87-123 | ug/L  |      |
| Bromochloromethane             | <1.000    | 50.00        | 48.99      | 98       | 74-136 | ug/L  |      |
| Bromodichloromethane           | <1.000    | 50.00        | 51.91      | 104      | 83-125 | ug/L  |      |
| Bromoform                      | <1.000    | 50.00        | 45.70      | 91       | 72-129 | ug/L  |      |
| Bromomethane                   | <1.000    | 50.00        | 36.88      | 74       | 45-167 | ug/L  |      |
| 2-Butanone (MEK)               | <5.000    | 50.00        | 44.38      | 89       | 45-136 | ug/L  |      |
| Carbon Disulfide               | <1.000    | 50.00        | 50.00      | 100      | 87-123 | ug/L  |      |
| Carbon tetrachloride           | <1.000    | 50.00        | 52.08      | 104      | 79-133 | ug/L  |      |
| Chlorobenzene                  | <1.000    | 50.00        | 47.78      | 96       | 87-127 | ug/L  |      |
| Chloroethane                   | <1.000    | 50.00        | 47.48      | 95       | 81-122 | ug/L  |      |
| Chloroform                     | <1.000    | 50.00        | 50.42      | 101      | 76-129 | ug/L  |      |
| Chloromethane                  | <1.000    | 50.00        | 49.81      | 100      | 59-121 | ug/L  |      |
| Cyclohexane                    | <10.00    | 50.00        | 52.03      | 104      | 83-122 | ug/L  |      |
| 1,2-Dibromo-3-chloropropane    | <5.000    | 50.00        | 46.04      | 92       | 63-140 | ug/L  |      |
| Dibromochloromethane           | <1.000    | 50.00        | 46.85      | 94       | 73-139 | ug/L  |      |
| 1,2-Dibromoethane              | <1.000    | 50.00        | 48.23      | 96       | 80-127 | ug/L  |      |
| 1,2-Dichlorobenzene            | <1.000    | 50.00        | 50.46      | 101      | 82-129 | ug/L  |      |
| 1,3-Dichlorobenzene            | <1.000    | 50.00        | 49.66      | 99       | 88-127 | ug/L  |      |
| Dichlorodifluoromethane        | <1.000    | 50.00        | 56.99      | 114      | 70-131 | ug/L  |      |
| 1,4-Dichlorobenzene            | <1.000    | 50.00        | 48.93      | 98       | 84-129 | ug/L  |      |
| 1,1-Dichloroethane             | <1.000    | 50.00        | 49.59      | 99       | 85-120 | ug/L  |      |
| 1,2-Dichloroethane             | <1.000    | 50.00        | 50.19      | 100      | 86-125 | ug/L  |      |
| cis-1,2-Dichloroethene         | <1.000    | 50.00        | 49.37      | 99       | 86-126 | ug/L  |      |
| 1,1-Dichloroethene             | <1.000    | 50.00        | 49.38      | 99       | 85-123 | ug/L  |      |
| 1,2-Dichloropropane            | <1.000    | 50.00        | 51.30      | 103      | 83-120 | ug/L  |      |
| cis-1,3-Dichloropropene        | <1.000    | 50.00        | 48.57      | 97       | 81-125 | ug/L  |      |
| trans-1,3-Dichloropropene      | <1.000    | 50.00        | 48.09      | 96       | 79-121 | ug/L  |      |
| trans-1,2-Dichloroethene       | <1.000    | 50.00        | 50.07      | 100      | 87-120 | ug/L  |      |
| Ethylbenzene                   | <1.000    | 50.00        | 51.51      | 103      | 82-128 | ug/L  |      |
| 2-Hexanone (MBK)               | <5.000    | 50.00        | 44.80      | 90       | 56-116 | ug/L  |      |
| Isopropylbenzene               | <1.000    | 50.00        | 53.87      | 108      | 81-128 | ug/L  |      |
| Methyl Acetate                 | <10.00    | 50.00        | 47.64      | 95       | 68-129 | ug/L  |      |
| Methylcyclohexane              | <10.00    | 50.00        | 49.97      | 100      | 84-127 | ug/L  |      |
| Methylene chloride             | <1.000    | 50.00        | 49.93      | 100      | 85-119 | ug/L  |      |
| 4-Methyl-2-Pentanone (MIBK)    | <5.000    | 50.00        | 44.64      | 89       | 57-116 | ug/L  |      |
| Methyl-t-Butyl Ether           | <1.000    | 50.00        | 48.91      | 98       | 61-130 | ug/L  |      |
| Naphthalene                    | <1.000    | 50.00        | 46.95      | 94       | 74-114 | ug/L  |      |
| Styrene                        | <1.000    | 50.00        | 48.38      | 97       | 76-130 | ug/L  |      |
| 1,1,2,2-Tetrachloroethane      | <1.000    | 50.00        | 46.43      | 93       | 79-131 | ug/L  |      |
| Tetrachloroethene              | <1.000    | 50.00        | 48.96      | 98       | 85-131 | ug/L  |      |
| Toluene                        | <1.000    | 50.00        | 49.55      | 99       | 82-127 | ug/L  |      |
| 1,2,3-Trichlorobenzene         | <1.000    | 50.00        | 49.59      | 99       | 79-123 | ug/L  |      |
| 1,2,4-Trichlorobenzene         | <1.000    | 50.00        | 50.68      | 101      | 78-123 | ug/L  |      |
| 1,1,1-Trichloroethane          | <1.000    | 50.00        | 51.06      | 102      | 87-125 | ug/L  |      |
| Trichloroethene                | <1.000    | 50.00        | 49.36      | 99       | 87-124 | ug/L  |      |
| 1,1,2-Trichloroethane          | <1.000    | 50.00        | 47.90      | 96       | 84-127 | ug/L  |      |
| Trichlorofluoromethane         | <1.000    | 50.00        | 48.21      | 96       | 85-130 | ug/L  |      |
| 1,1,2-Trichlorotrifluoroethane | <1.000    | 50.00        | 50.28      | 101      | 81-132 | ug/L  |      |
| Vinyl chloride                 | <1.000    | 50.00        | 53.03      | 106      | 66-133 | ug/L  |      |
| m&p-Xylene                     | <2.000    | 100          | 103.4      | 103      | 78-126 | ug/L  |      |

## QC Summary

6630 Baltimore National Pike  
Baltimore, MD 21228  
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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171829

Matrix: Water

Prep Method: SW5030B

Date Prep: 02/11/20

MB Sample Id: 80323-1-BLK

LCS Sample Id: 80323-1-BKS

| Parameter            | MB<br>Result | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | Limits | Units | Flag |
|----------------------|--------------|-----------------|---------------|-------------|--------|-------|------|
| o-Xylene             | <1.000       | 50.00           | 52.24         | 104         | 75-130 | ug/L  |      |
| Surrogate            | MB<br>%Rec   | MB<br>Flag      | LCS<br>Result | LCS<br>Flag | Limits | Units |      |
| 4-Bromofluorobenzene | 106          |                 | 102           |             | 87-109 | %     |      |
| Dibromofluoromethane | 105          |                 | 100           |             | 93-111 | %     |      |
| Toluene-D8           | 102          |                 | 101           |             | 91-109 | %     |      |

## QC Summary

Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171790

Parent Sample Id: 20020613-001

Matrix: Ground Water

MS Sample Id: 20020613-001 S

Prep Method: SW5030B

Date Prep: 02/10/20

MSD Sample Id: 20020613-001 SD

| Parameter                      | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|--------------------------------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|------|
| Acetone                        | <5.000        | 50.00        | 30.86     | 62      | 30.00      | 60       | 50-156 | 3    | 25        | ug/L  |      |
| Benzene                        | <1.000        | 50.00        | 53.34     | 107     | 51.94      | 104      | 77-143 | 3    | 25        | ug/L  |      |
| Bromochloromethane             | <1.000        | 50.00        | 51.60     | 103     | 52.04      | 104      | 83-133 | 1    | 25        | ug/L  |      |
| Bromodichloromethane           | <1.000        | 50.00        | 56.89     | 114     | 55.83      | 112      | 75-142 | 2    | 25        | ug/L  |      |
| Bromoform                      | <1.000        | 50.00        | 49.86     | 100     | 49.97      | 100      | 74-131 | 0    | 25        | ug/L  |      |
| Bromomethane                   | <1.000        | 50.00        | 28.78     | 58      | 27.81      | 56       | 48-166 | 4    | 25        | ug/L  |      |
| 2-Butanone (MEK)               | <5.000        | 50.00        | 37.29     | 75      | 38.72      | 77       | 68-127 | 3    | 25        | ug/L  |      |
| Carbon Disulfide               | <1.000        | 50.00        | 57.08     | 114     | 55.17      | 110      | 73-148 | 4    | 25        | ug/L  |      |
| Carbon tetrachloride           | <1.000        | 50.00        | 57.07     | 114     | 54.78      | 110      | 76-144 | 4    | 25        | ug/L  |      |
| Chlorobenzene                  | <1.000        | 50.00        | 50.78     | 102     | 49.70      | 99       | 73-150 | 3    | 25        | ug/L  |      |
| Chloroethane                   | <1.000        | 50.00        | 59.50     | 119     | 56.04      | 112      | 72-142 | 6    | 25        | ug/L  |      |
| Chloroform                     | <1.000        | 50.00        | 53.06     | 106     | 52.84      | 106      | 81-134 | 0    | 25        | ug/L  |      |
| Chloromethane                  | <1.000        | 50.00        | 53.44     | 107     | 50.79      | 102      | 46-143 | 5    | 25        | ug/L  |      |
| Cyclohexane                    | <10.00        | 50.00        | 56.12     | 112     | 53.81      | 108      | 75-138 | 4    | 25        | ug/L  |      |
| 1,2-Dibromo-3-chloropropane    | <5.000        | 50.00        | 51.31     | 103     | 50.53      | 101      | 73-135 | 2    | 25        | ug/L  |      |
| Dibromochloromethane           | <1.000        | 50.00        | 50.17     | 100     | 50.01      | 100      | 81-137 | 0    | 25        | ug/L  |      |
| 1,2-Dibromoethane              | <1.000        | 50.00        | 51.78     | 104     | 51.81      | 104      | 68-149 | 0    | 25        | ug/L  |      |
| 1,2-Dichlorobenzene            | <1.000        | 50.00        | 50.27     | 101     | 50.05      | 100      | 66-146 | 1    | 25        | ug/L  |      |
| 1,3-Dichlorobenzene            | <1.000        | 50.00        | 49.35     | 99      | 48.61      | 97       | 61-154 | 2    | 25        | ug/L  |      |
| Dichlorodifluoromethane        | <1.000        | 50.00        | 59.15     | 118     | 56.67      | 113      | 60-148 | 4    | 25        | ug/L  |      |
| 1,4-Dichlorobenzene            | <1.000        | 50.00        | 48.51     | 97      | 47.81      | 96       | 64-150 | 1    | 25        | ug/L  |      |
| 1,1-Dichloroethane             | <1.000        | 50.00        | 53.77     | 108     | 52.83      | 106      | 76-139 | 2    | 25        | ug/L  |      |
| 1,2-Dichloroethane             | <1.000        | 50.00        | 53.66     | 107     | 52.87      | 106      | 81-139 | 1    | 25        | ug/L  |      |
| cis-1,2-Dichloroethene         | <1.000        | 50.00        | 53.96     | 108     | 53.34      | 107      | 80-142 | 1    | 25        | ug/L  |      |
| 1,1-Dichloroethene             | <1.000        | 50.00        | 53.60     | 107     | 51.48      | 103      | 74-142 | 4    | 25        | ug/L  |      |
| 1,2-Dichloropropane            | <1.000        | 50.00        | 56.00     | 112     | 54.67      | 109      | 73-138 | 3    | 25        | ug/L  |      |
| cis-1,3-Dichloropropene        | <1.000        | 50.00        | 51.04     | 102     | 50.79      | 102      | 64-149 | 0    | 25        | ug/L  |      |
| trans-1,3-Dichloropropene      | <1.000        | 50.00        | 50.57     | 101     | 50.50      | 101      | 67-135 | 0    | 25        | ug/L  |      |
| trans-1,2-Dichloroethene       | <1.000        | 50.00        | 50.87     | 102     | 50.89      | 102      | 75-142 | 0    | 25        | ug/L  |      |
| Ethylbenzene                   | <1.000        | 50.00        | 54.16     | 108     | 52.88      | 106      | 68-151 | 2    | 25        | ug/L  |      |
| 2-Hexanone (MBK)               | <5.000        | 50.00        | 43.06     | 86      | 43.90      | 88       | 43-147 | 2    | 25        | ug/L  |      |
| Isopropylbenzene               | <1.000        | 50.00        | 53.38     | 107     | 52.77      | 106      | 67-148 | 1    | 25        | ug/L  |      |
| Methyl Acetate                 | <10.00        | 50.00        | 51.50     | 103     | 50.58      | 101      | 69-133 | 2    | 25        | ug/L  |      |
| Methylcyclohexane              | <10.00        | 50.00        | 50.23     | 100     | 48.12      | 96       | 62-152 | 4    | 25        | ug/L  |      |
| Methylene chloride             | <1.000        | 50.00        | 53.19     | 106     | 51.78      | 104      | 73-141 | 2    | 25        | ug/L  |      |
| 4-Methyl-2-Pentanone (MIBK)    | <5.000        | 50.00        | 51.72     | 103     | 52.25      | 105      | 61-125 | 2    | 25        | ug/L  |      |
| Methyl-t-Butyl Ether           | 1.050         | 50.00        | 52.85     | 104     | 53.30      | 105      | 45-143 | 1    | 25        | ug/L  |      |
| Naphthalene                    | <1.000        | 50.00        | 49.33     | 99      | 50.05      | 100      | 40-145 | 1    | 25        | ug/L  |      |
| Styrene                        | <1.000        | 50.00        | 51.20     | 102     | 49.91      | 100      | 72-135 | 2    | 25        | ug/L  |      |
| 1,1,2,2-Tetrachloroethane      | <1.000        | 50.00        | 49.31     | 99      | 50.27      | 101      | 70-150 | 2    | 25        | ug/L  |      |
| Tetrachloroethene              | <1.000        | 50.00        | 51.12     | 102     | 49.08      | 98       | 55-166 | 4    | 25        | ug/L  |      |
| Toluene                        | <1.000        | 50.00        | 54.69     | 109     | 52.12      | 104      | 68-152 | 5    | 25        | ug/L  |      |
| 1,2,3-Trichlorobenzene         | <1.000        | 50.00        | 47.68     | 95      | 48.31      | 97       | 21-172 | 2    | 25        | ug/L  |      |
| 1,2,4-Trichlorobenzene         | <1.000        | 50.00        | 48.87     | 98      | 48.89      | 98       | 16-172 | 0    | 25        | ug/L  |      |
| 1,1,1-Trichloroethane          | <1.000        | 50.00        | 53.97     | 108     | 53.00      | 106      | 80-143 | 2    | 25        | ug/L  |      |
| Trichloroethene                | <1.000        | 50.00        | 53.03     | 106     | 51.47      | 103      | 73-148 | 3    | 25        | ug/L  |      |
| 1,1,2-Trichloroethane          | <1.000        | 50.00        | 52.85     | 106     | 52.87      | 106      | 68-154 | 0    | 25        | ug/L  |      |
| Trichlorofluoromethane         | <1.000        | 50.00        | 50.65     | 101     | 49.05      | 98       | 80-145 | 3    | 25        | ug/L  |      |
| 1,1,2-Trichlorotrifluoroethane | <1.000        | 50.00        | 51.23     | 102     | 49.43      | 99       | 73-147 | 3    | 25        | ug/L  |      |
| Vinyl chloride                 | <1.000        | 50.00        | 57.86     | 116     | 54.76      | 110      | 79-128 | 5    | 25        | ug/L  |      |
| m&p-Xylene                     | <2.000        | 100          | 109.1     | 109     | 105.2      | 105      | 70-138 | 4    | 25        | ug/L  |      |

## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171790

Parent Sample Id: 20020613-001

Matrix: Ground Water

MS Sample Id: 20020613-001 S

Prep Method: SW5030B

Date Prep: 02/10/20

MSD Sample Id: 20020613-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|-----------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|------|
| o-Xylene  | <1.000        | 50.00        | 55.60     | 111     | 53.61      | 107      | 71-139 | 4    | 25        | ug/L  |      |

### Surrogate

|                      | MS Result | MS Flag | MSD Result | MSD Flag | Limits | Units |
|----------------------|-----------|---------|------------|----------|--------|-------|
| 4-Bromofluorobenzene | 100       |         | 101        |          | 87-109 | %     |
| Dibromofluoromethane | 99        |         | 100        |          | 93-111 | %     |
| Toluene-D8           | 105       |         | 102        |          | 91-109 | %     |



## QC Summary

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Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171829

Parent Sample Id: 20020613-006

Matrix: Ground Water

MS Sample Id: 20020613-006 S

Prep Method: SW5030B

Date Prep: 02/11/20

MSD Sample Id: 20020613-006 SD

| Parameter                      | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|--------------------------------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|------|
| Acetone                        | <5.000        | 50.00        | 28.90     | 58      | 31.23      | 62       | 50-156 | 7    | 25        | ug/L  |      |
| Benzene                        | <1.000        | 50.00        | 52.55     | 105     | 51.36      | 103      | 77-143 | 2    | 25        | ug/L  |      |
| Bromochloromethane             | <1.000        | 50.00        | 51.42     | 103     | 51.61      | 103      | 83-133 | 0    | 25        | ug/L  |      |
| Bromodichloromethane           | <1.000        | 50.00        | 56.27     | 113     | 56.27      | 113      | 75-142 | 0    | 25        | ug/L  |      |
| Bromoform                      | <1.000        | 50.00        | 50.00     | 100     | 48.94      | 98       | 74-131 | 2    | 25        | ug/L  |      |
| Bromomethane                   | <1.000        | 50.00        | 30.99     | 62      | 26.68      | 53       | 48-166 | 16   | 25        | ug/L  |      |
| 2-Butanone (MEK)               | <5.000        | 50.00        | 36.93     | 74      | 36.76      | 74       | 68-127 | 0    | 25        | ug/L  |      |
| Carbon Disulfide               | <1.000        | 50.00        | 59.88     | 120     | 58.60      | 117      | 73-148 | 3    | 25        | ug/L  |      |
| Carbon tetrachloride           | <1.000        | 50.00        | 58.13     | 116     | 57.32      | 115      | 76-144 | 1    | 25        | ug/L  |      |
| Chlorobenzene                  | <1.000        | 50.00        | 50.24     | 100     | 48.43      | 97       | 73-150 | 3    | 25        | ug/L  |      |
| Chloroethane                   | <1.000        | 50.00        | 110.8     | 222     | 80.51      | 161      | 72-142 | 32   | 25        | ug/L  | XF   |
| Chloroform                     | <1.000        | 50.00        | 53.20     | 106     | 52.74      | 105      | 81-134 | 1    | 25        | ug/L  |      |
| Chloromethane                  | <1.000        | 50.00        | 54.64     | 109     | 54.01      | 108      | 46-143 | 1    | 25        | ug/L  |      |
| Cyclohexane                    | <10.00        | 50.00        | 55.82     | 112     | 54.20      | 108      | 75-138 | 4    | 25        | ug/L  |      |
| 1,2-Dibromo-3-chloropropane    | <5.000        | 50.00        | 52.71     | 105     | 49.90      | 100      | 73-135 | 5    | 25        | ug/L  |      |
| Dibromochloromethane           | <1.000        | 50.00        | 50.65     | 101     | 49.23      | 98       | 81-137 | 3    | 25        | ug/L  |      |
| 1,2-Dibromoethane              | <1.000        | 50.00        | 50.99     | 102     | 49.17      | 98       | 68-149 | 4    | 25        | ug/L  |      |
| 1,2-Dichlorobenzene            | <1.000        | 50.00        | 51.69     | 103     | 48.33      | 97       | 66-146 | 6    | 25        | ug/L  |      |
| 1,3-Dichlorobenzene            | <1.000        | 50.00        | 51.06     | 102     | 46.62      | 93       | 61-154 | 9    | 25        | ug/L  |      |
| Dichlorodifluoromethane        | <1.000        | 50.00        | 59.01     | 118     | 57.58      | 115      | 60-148 | 3    | 25        | ug/L  |      |
| 1,4-Dichlorobenzene            | <1.000        | 50.00        | 50.04     | 100     | 45.91      | 92       | 64-150 | 8    | 25        | ug/L  |      |
| 1,1-Dichloroethane             | <1.000        | 50.00        | 53.28     | 107     | 53.02      | 106      | 76-139 | 1    | 25        | ug/L  |      |
| 1,2-Dichloroethane             | <1.000        | 50.00        | 53.44     | 107     | 53.84      | 108      | 81-139 | 1    | 25        | ug/L  |      |
| cis-1,2-Dichloroethene         | <1.000        | 50.00        | 52.98     | 106     | 52.26      | 105      | 80-142 | 1    | 25        | ug/L  |      |
| 1,1-Dichloroethene             | <1.000        | 50.00        | 52.54     | 105     | 52.27      | 105      | 74-142 | 0    | 25        | ug/L  |      |
| 1,2-Dichloropropane            | <1.000        | 50.00        | 54.88     | 110     | 54.98      | 110      | 73-138 | 0    | 25        | ug/L  |      |
| cis-1,3-Dichloropropene        | <1.000        | 50.00        | 50.30     | 101     | 50.10      | 100      | 64-149 | 1    | 25        | ug/L  |      |
| trans-1,3-Dichloropropene      | <1.000        | 50.00        | 50.62     | 101     | 50.74      | 101      | 67-135 | 0    | 25        | ug/L  |      |
| trans-1,2-Dichloroethene       | <1.000        | 50.00        | 52.36     | 105     | 51.74      | 103      | 75-142 | 2    | 25        | ug/L  |      |
| Ethylbenzene                   | <1.000        | 50.00        | 54.12     | 108     | 51.85      | 104      | 68-151 | 4    | 25        | ug/L  |      |
| 2-Hexanone (MBK)               | <5.000        | 50.00        | 42.83     | 86      | 43.10      | 86       | 43-147 | 0    | 25        | ug/L  |      |
| Isopropylbenzene               | <1.000        | 50.00        | 55.57     | 111     | 50.94      | 102      | 67-148 | 8    | 25        | ug/L  |      |
| Methyl Acetate                 | <10.00        | 50.00        | 50.06     | 100     | 51.04      | 102      | 69-133 | 2    | 25        | ug/L  |      |
| Methylcyclohexane              | <10.00        | 50.00        | 50.95     | 102     | 48.87      | 98       | 62-152 | 4    | 25        | ug/L  |      |
| Methylene chloride             | <1.000        | 50.00        | 54.12     | 108     | 53.06      | 106      | 73-141 | 2    | 25        | ug/L  |      |
| 4-Methyl-2-Pentanone (MIBK)    | <5.000        | 50.00        | 50.00     | 100     | 50.97      | 102      | 61-125 | 2    | 25        | ug/L  |      |
| Methyl-t-Butyl Ether           | <1.000        | 50.00        | 53.55     | 107     | 53.41      | 107      | 45-143 | 0    | 25        | ug/L  |      |
| Naphthalene                    | 15.80         | 50.00        | 68.97     | 106     | 64.87      | 98       | 40-145 | 8    | 25        | ug/L  |      |
| Styrene                        | <1.000        | 50.00        | 50.55     | 101     | 49.14      | 98       | 72-135 | 3    | 25        | ug/L  |      |
| 1,1,2,2-Tetrachloroethane      | <1.000        | 50.00        | 50.34     | 101     | 46.01      | 92       | 70-150 | 9    | 25        | ug/L  |      |
| Tetrachloroethene              | <1.000        | 50.00        | 49.98     | 100     | 48.82      | 98       | 55-166 | 2    | 25        | ug/L  |      |
| Toluene                        | <1.000        | 50.00        | 53.31     | 107     | 52.84      | 106      | 68-152 | 1    | 25        | ug/L  |      |
| 1,2,3-Trichlorobenzene         | <1.000        | 50.00        | 51.36     | 103     | 46.68      | 93       | 21-172 | 10   | 25        | ug/L  |      |
| 1,2,4-Trichlorobenzene         | <1.000        | 50.00        | 51.09     | 102     | 47.37      | 95       | 16-172 | 7    | 25        | ug/L  |      |
| 1,1,1-Trichloroethane          | <1.000        | 50.00        | 55.12     | 110     | 54.92      | 110      | 80-143 | 0    | 25        | ug/L  |      |
| Trichloroethene                | <1.000        | 50.00        | 51.81     | 104     | 51.37      | 103      | 73-148 | 1    | 25        | ug/L  |      |
| 1,1,2-Trichloroethane          | <1.000        | 50.00        | 51.59     | 103     | 51.29      | 103      | 68-154 | 0    | 25        | ug/L  |      |
| Trichlorofluoromethane         | <1.000        | 50.00        | 51.13     | 102     | 51.27      | 103      | 80-145 | 1    | 25        | ug/L  |      |
| 1,1,2-Trichlorotrifluoroethane | <1.000        | 50.00        | 51.04     | 102     | 50.99      | 102      | 73-147 | 0    | 25        | ug/L  |      |
| Vinyl chloride                 | <1.000        | 50.00        | 59.24     | 118     | 57.51      | 115      | 79-128 | 3    | 25        | ug/L  |      |
| m&p-Xylene                     | <2.000        | 100          | 107.8     | 108     | 103.8      | 104      | 70-138 | 4    | 25        | ug/L  |      |

## QC Summary

6630 Baltimore National Pike  
Baltimore, MD 21228  
410-747-8770  
800-932-9047  
www.phaseonline.com

Project Name RTN  
PSS Project No.: 20020613

### Analytical Method: SW-846 8260 B

Seq Number: 171829

Parent Sample Id: 20020613-006

Matrix: Ground Water

MS Sample Id: 20020613-006 S

Prep Method: SW5030B

Date Prep: 02/11/20

MSD Sample Id: 20020613-006 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Flag |
|-----------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|------|
| o-Xylene  | <1.000        | 50.00        | 54.66     | 109     | 53.02      | 106      | 71-139 | 3    | 25        | ug/L  |      |

### Surrogate

|                      | MS Result | MS Flag | MSD Result | MSD Flag | Limits | Units |
|----------------------|-----------|---------|------------|----------|--------|-------|
| 4-Bromofluorobenzene | 102       |         | 98         |          | 87-109 | %     |
| Dibromofluoromethane | 101       |         | 104        |          | 93-111 | %     |
| Toluene-D8           | 103       |         | 105        |          | 91-109 | %     |

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

## SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

**PHASE SEPARATION SCIENCE, INC.**

**www.phaseonline.com**

**email: [info@phaseonline.com](mailto:info@phaseonline.com)**

[illegible]

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. \* = REQUIRED





# SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|-----------------------------------------------------|----------------------|--------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------|------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------|------------|-----------------------------------|--|--|--|--|--|--|--|--|--|------------------------|
| <b>1</b> *CLIENT: AZONE                             |                      | *OFFICE LOC.: Charles Town, WV |        | PSS Work Order #: 20020613                                                                                                    |                       | PAGE 2 OF 2                                           |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| *PROJECT MGR: M. Bruzzesi                           |                      | *PHONE NO.: 703-608-5969       |        | Matrix Codes:<br>SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W=Wipe |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| EMAIL: mbruzzesi@a-zoneenvironmental.com            |                      | FAX NO.:                       |        | Preservatives Used ←                                                                                                          |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| *PROJECT NAME: RTN                                  |                      | PROJECT NO.: 6078              |        | * <b>3</b><br>Analysis/<br>Method<br>Required<br>←                                                                            |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| SITE LOCATION: Alexandria, VA                       |                      | P.O. NO.:                      |        | REMARKS ↓                                                                                                                     |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| SAMPLERS: M. Bruzzesi, C. Hebert, and J. Kenderdine |                      |                                |        | DW CERT NO.:                                                                                                                  |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| <b>2</b>                                            | LAB NO.              | SAMPLE IDENTIFICATION          | DATE   | TIME                                                                                                                          | MATRIX<br>(See Codes) | No.<br>C<br>O<br>N<br>T<br>A<br>I<br>N<br>E<br>R<br>S | SAMPLE<br>TYPE<br><br>C =<br>COMP<br><br>G =<br>GRAB | TPH-GRO 8015C | TPH-DRO 8015C                                                                                           | VOCs 8260B | SVOCs 8270C                       |  |  |  |  |  |  |  |  |  |                        |
|                                                     | 11                   | MiHpt-22                       | 2/5/20 | 0815                                                                                                                          | GW                    | 8                                                     | G                                                    | ✓             | ✓                                                                                                       | ✓          | ✓                                 |  |  |  |  |  |  |  |  |  | Click to enter Remarks |
|                                                     | 12                   | MW23                           | 2/5/20 | 1140                                                                                                                          | GW                    | 8                                                     | G                                                    | ✓             | ✓                                                                                                       | ✓          | ✓                                 |  |  |  |  |  |  |  |  |  |                        |
|                                                     | 13                   | MW24                           | 2/5/20 | 1040                                                                                                                          | GW                    | 8                                                     | G                                                    | ✓             | ✓                                                                                                       | ✓          | ✓                                 |  |  |  |  |  |  |  |  |  |                        |
|                                                     | 14                   | MW25                           | 2/5/20 | 0945                                                                                                                          | GW                    | 8                                                     | G                                                    | ✓             | ✓                                                                                                       | ✓          | ✓                                 |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     |                      |                                |        |                                                                                                                               |                       |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |
| <b>5</b>                                            | Relinquished By: (1) |                                | Date   | Time                                                                                                                          | Received By:          |                                                       | <b>4</b>                                             |               | *Requested Turnaround Time                                                                              |            | # of Coolers: 4                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     | SLT/A                |                                | 2/6/20 | 1200                                                                                                                          | [Signature]           |                                                       |                                                      |               | <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day |            | Custody Seal: ABJ                 |  |  |  |  |  |  |  |  |  |                        |
|                                                     | Relinquished By: (2) |                                | Date   | Time                                                                                                                          | Received By:          |                                                       |                                                      |               | <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other     |            | Ice Present: PREJ Temp: 3.10-3.52 |  |  |  |  |  |  |  |  |  |                        |
|                                                     | [Signature]          |                                | 2-6-20 | 1200                                                                                                                          | [Signature]           |                                                       |                                                      |               | Data Deliverables Required:                                                                             |            | Shipping Carrier: TTV             |  |  |  |  |  |  |  |  |  |                        |
|                                                     | Relinquished By: (3) |                                | Date   | Time                                                                                                                          | Received By:          |                                                       |                                                      |               | Special Instructions:                                                                                   |            |                                   |  |  |  |  |  |  |  |  |  |                        |
|                                                     | Relinquished By: (4) |                                | Date   | Time                                                                                                                          | Received By:          |                                                       |                                                      |               |                                                                                                         |            |                                   |  |  |  |  |  |  |  |  |  |                        |

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. \* = REQUIRED

## Sample Receipt Checklist

Project Name: RTN  
PSS Project No.: 20020613

**Client Name** A-Zone Environmental Services  
**Disposal Date** 03/12/2020

**Received By** Thomas Wingate  
**Date Received** 02/06/2020 12:50:00 PM  
**Delivered By** Trans Time Express  
**Tracking No** Not Applicable  
**Logged In By** Thomas Wingate

### Shipping Container(s)

No. of Coolers 4

Custody Seal(s) Intact? N/A  
Seal(s) Signed / Dated? N/A

Ice Present  
Temp (deg C) 3.5  
Temp Blank Present No

### Documentation

COC agrees with sample labels? Yes  
Chain of Custody Yes

Sampler Name MB, CH, JK  
MD DW Cert. No. N/A

### Sample Container

Appropriate for Specified Analysis? Yes  
Intact? Yes  
Labeled and Labels Legible? Yes

Custody Seal(s) Intact? Not Applicable  
Seal(s) Signed / Dated Not Applicable

### Holding Time

All Samples Received Within Holding Time(s)? Yes

Total No. of Samples Received 14  
Total No. of Containers Received 111

### Preservation

Total Metals (pH<2) N/A  
Dissolved Metals, filtered within 15 minutes of collection (pH<2) N/A  
Orthophosphorus, filtered within 15 minutes of collection N/A  
Cyanides (pH>12) N/A  
Sulfide (pH>9) N/A  
TOC, DOC (field filtered), COD, Phenols (pH<2) N/A  
TOX, TKN, NH3, Total Phos (pH<2) N/A  
VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2) Yes  
Do VOA vials have zero headspace? Yes  
624 VOC (Rcvd at least one unpreserved VOA vial) N/A  
524 VOC (Rcvd with trip blanks) (pH<2) N/A

### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:



Thomas Wingate

Date: 02/06/2020

PM Review and Approval:



Amber Confer

Date: 02/06/2020